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# INCOME in ALASKA

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**THE ANNUAL AUGUST ISSUE**  
**OF THE**  
**SURVEY OF CURRENT BUSINESS**  
**MONTHLY PUBLICATION**  
**OF THE OFFICE OF BUSINESS ECONOMICS**

**For Details of the Income Flow in Each State**



**ALASKAN FIGURES**

**Will Be Carried Forward Annually in the August Issue**

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# INCOME in ALASKA

*A Supplement to the Survey of Current Business*

U.S. DEPARTMENT OF COMMERCE

Frederick H. Mueller  
Secretary

OFFICE OF BUSINESS ECONOMICS

M. Joseph Meehan  
Director

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By  
Robert E. Graham, Jr.

National Income Division  
Office of Business Economics

INCOME

IN

ANNUAL

THE 1917-18 FISCAL YEAR

A REPORT OF THE COMMISSIONER OF THE BUREAU OF INTERNAL REVENUE

UNITED STATES DEPARTMENT OF THE TREASURY

WASHINGTON

1918

U.S. DEPARTMENT OF COMMERCE

WASHINGTON

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OFFICE OF BUREAU OF COMMERCE

WASHINGTON



## Foreword

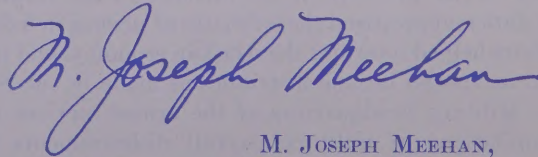
The income measures presented here provide an annual economic record of the past decade, by means of which market expansion and economic growth in Alaska can be traced. The publication of this report marks the completion of the Office of Business Economics' work in extending its measures of the geographic distribution of income to all the States. This comprehensive market measure is now available on an annual basis for each of the 50 States of the Nation.

The economic record consists of summary figures on total and per capita income and detailed breakdowns of the flow, by type and by industry. The data portray the size and characteristics of the consumer market in Alaska and the changes that have occurred. Since the personal income estimates are made within the framework of the national income and product accounts, the Alaskan economy can be studied as an independent market or as an integral part of the national market.

The income figures serve a wide range of needs, and will be especially useful as the Alaskan economy moves forward. Business establishments will find them a basic measure of purchasing power and an essential ingredient in all types of market analysis. They serve many data requirements of the government.

Work on Alaskan income was initiated with a field survey immediately after statehood was achieved. The comprehensiveness of the results was made possible by the fine cooperation we have received, which is acknowledged on the following page.

The information for Alaska will be updated each year and published along with the materials for all other States in the August issues of the *Survey of Current Business*.



M. JOSEPH MEEHAN,  
*Director, Office of Business Economics.*

JUNE 1960.

## Acknowledgments

This volume was organized and prepared by Robert E. Graham, Jr., Chief of the Income Section of OBE's National Income Division and responsible for its regional income measures. He spent an extended period on the requisite field survey in Alaska.

Primary acknowledgment is due Edward A. Trott, Jr., and Dorothy Anne Fisher who participated in all phases of this study. Most of the statistical work was done under their respective supervision. Mae B. Rothery served as statistical assistant in the preparation of the estimates and was responsible for assembling the statistical material in final form.

Chart presentations in this report were executed by Billy Jo Dawkins, graphics specialist of the OBE.

The Assistant Commissioner, Alaska Department of Revenue, R. D. Stevenson, developed a special tabulation of State income tax returns which provided strong support for the income calculations generally. Also, they furnished the basis for measuring the income flow to nonresident workers and the intra-state geographic distribution of several income components.

Others in the State government who provided special assistance include: G. C. Stromberg, Supervisor of Research and Analysis, Employment Security Division, Alaska Department of Labor, who furnished numerous compilations of employment and payrolls; Gertrude Dean, Alaska Department of Natural Resources, who served as liaison with individual State agencies; and Charles F. Marsh, Alaska Department of Agriculture, who prepared the estimates of agricultural income.

The Alaska State Chamber of Commerce, through its President, George Sharrock, enlisted the cooperation of individual city and town governments in furnishing information on municipal employment and payrolls.

The U.S. Department of the Interior was particularly helpful. The Fish and Wildlife Service, through Robert R. Simpson, contributed to the development of the measures of net incomes in the fishing industry. He assembled the data and prepared the estimates of income in fishing. The Bureau of Indian Affairs helped interpret the Alaskan economy, and provided statistical information on special income distributions made in the State.

Military headquarters of the armed services in Alaska provided special compilations of military payroll disbursements and number of personnel. Appreciation is extended the following who made our task of income compilation possible: Lt. Col. N. H. Carpenter, Director of Accounting and Finance, Headquarters Alaskan Air Command, Elmendorf Air Force Base; Lt. Col. John O. Hunnicutt, Headquarters U.S. Army, Alaska, Fort Richardson; and Lt. Comdr. Francis Malerich, Headquarters 17th Naval District, Kodiak.

William H. Flood, Manager of the Department of Commerce Field Office in Seattle, Wash., arranged numerous contacts in both Seattle and Alaska and participated in the field survey conducted in Alaska.



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## SUMMARY OF FINDINGS

1. Personal income received by residents of Alaska in 1959 amounted to \$556 million, the equivalent of \$2,550 per person for the State's population of 218,000, inclusive of military personnel.

2. Income in Alaska has expanded by three-fourths since 1950, with most of the advance occurring in the early years of the decade when the Korean buildup engendered a spurt in military and related activity. From 1953 to 1959, individual incomes rose one-tenth, as the earlier gains were maintained and extended.

3. Per capita income is high. At the peak reached in the military-induced expansion of 1951, the average was three-fifths above the national per capita; in 1959 it stood one-fifth above the national average.

4. Income and population are unevenly distributed in the State. Major concentrations are in the Central area where average incomes are highest. About one-third of the State's population is divided between the western and southeastern sections, with per capita income in the West substantially below that in the Southeast.

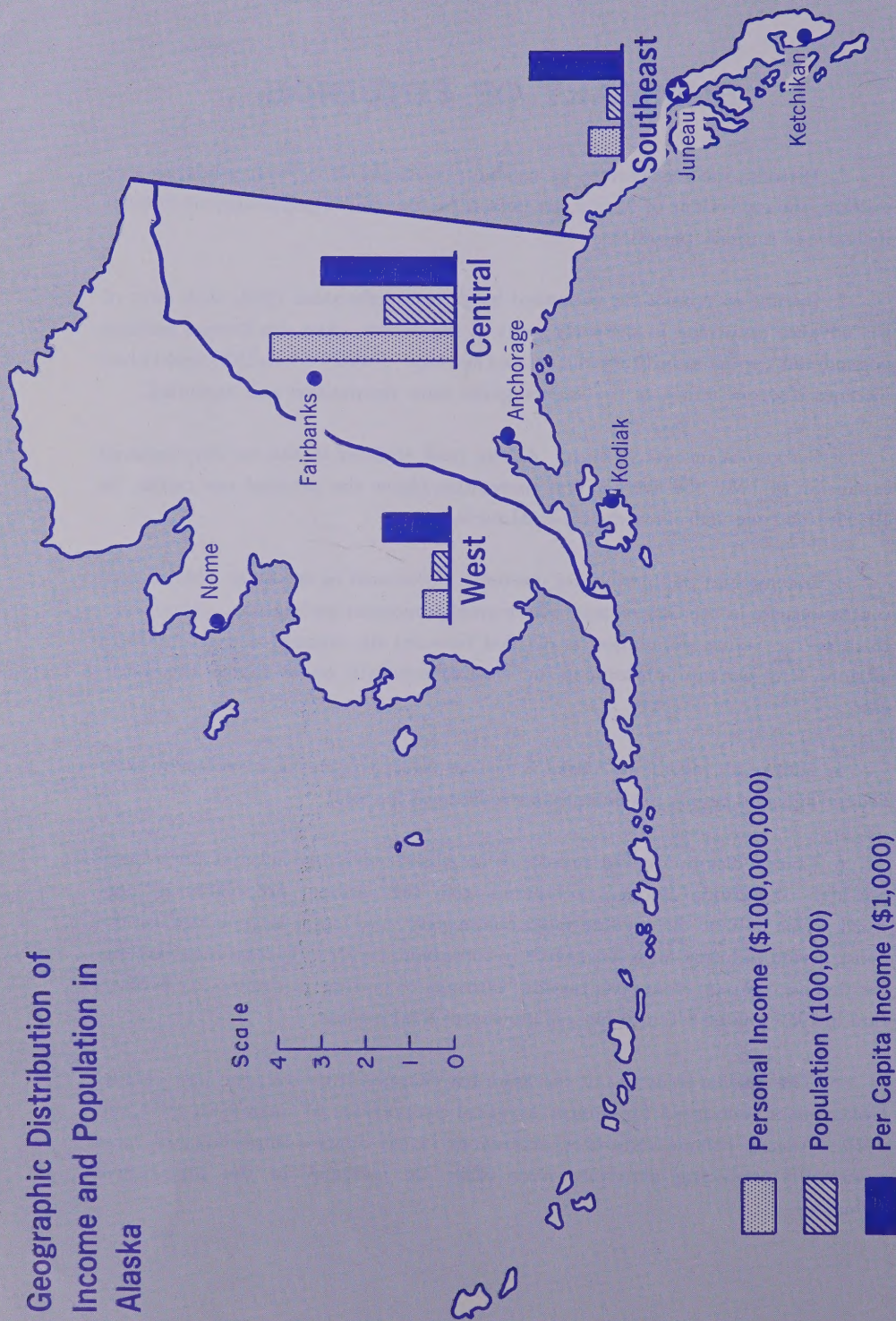
5. Half of all income in Alaska is derived directly from the government, with Federal agencies paying out more than two-fifths of the total.

6. Commodity-producing industries in Alaska currently account for around one-fifth of personal income, compared with the national proportion of one-third. One-half of the income from commodity production is generated by the construction industry, which is geared in considerable part to Federal requirements for defense. Apart from construction, earnings of persons in commodity production in 1959 totaled \$50 million—10 percent of total income.

7. The income structure of the State has changed little over the past decade. Government accounted for almost identical proportions of income in 1950 and 1959. Among private industries, reductions in the relative importance of most commodity-producing activities were offset by increases in the distributive industries.



# Geographic Distribution of Income and Population in Alaska





# INCOME in ALASKA

## *The Basic State of the Economy*

**ECONOMIC GROWTH** and market expansion feature the changing economy of Alaska. Production and consumption have moved up to record highs. As pictured in the chart recent economic progress of the State has been substantial.

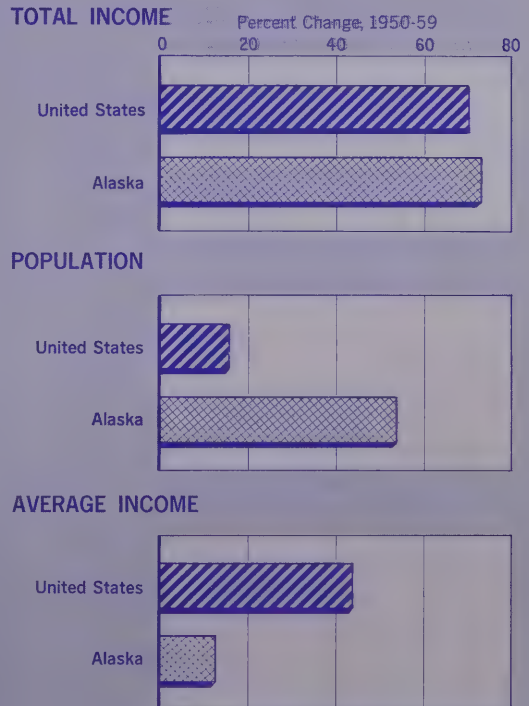
Personal income of Alaska at \$556 million in 1959 was a record total, nearly 6 percent more than in 1958. The 1959 advance, which followed the declines of 1957 and 1958, stemmed almost entirely from increases in private industries, though government activities continued their major role in the economy.

Per capita personal income—total income divided by total population—amounted to \$2,550 in 1959. This was 2½ percent above the previous year's average and second only to the alltime high reached in 1951 when an expanded system of national defense facilities was being pushed to completion.

The 1959 per capita figure is nearly one-fifth larger than the \$2,166 recorded for the United States as a whole. Alaska ranks ninth in per capita income. Conversely, its income is above that in 41 States and the District of Columbia. Over the past decade, several sharp fluctuations have occurred in per capita income in Alaska relative to the national average. Apart from short-term changes, and in line with development of the past decade, the State's margin over the national average has lessened.

Chart 1

### Change in Economic Measures





The table on page 5 shows total and per capita income in all the States in 1959. Columns are included showing the percent of the Nation's personal income total received in each State, and the percent that average income in

each State is of the national figure. Data for Alaska and Hawaii are shown for convenient comparison, although the figures for neither have as yet been incorporated in the national total of personal income.

## THE PROFILE OF INCOME

This review presents the State's economic profile through its personal income structure. The accompanying tabulation gives the proportion of total income stemming from the various industrial sources. A somewhat more summary picture is presented in chart 2. The proportions shown in the tabulation and chart serve as relative weights for assessing the effect of specific economic developments in the 1950-59 period on changes in the overall income flow. Comparable figures for the Nation furnish perspective. Dollar amounts of income according to industrial origin are shown in table 3, page 33, for all years since 1950.

### Role of Government

Strategically situated astride the northern Great Circle Route, Alaska is a key post in the perimeter of our defense system, and expenditures there for national security are large. Income paid directly to residents of the State by Federal, State, and local governments accounts for one-half of all personal income—a proportion almost three times that in the United States as a whole. This comparison is made in chart 2.

Further evidence of the role of government is its high degree of stability as an income source. Despite the large percentage changes that have occurred in total income from year to year, the flow of income from government has formed a relatively constant proportion of aggregate income (see chart 3). This relationship is a

causal one in that changes in income paid out by government are a principal factor effecting changes in other income components.

Most income from government is of Federal origin, with wages and salaries paid to military and civilian employees constituting the largest portion of the National Government's disbursements. Other Federal payments consist of interest to Alaskan residents, several items of supplementary labor income, social insurance bene-

**Percent Distribution of Personal Income in the United States and Alaska, 1950 and 1959**

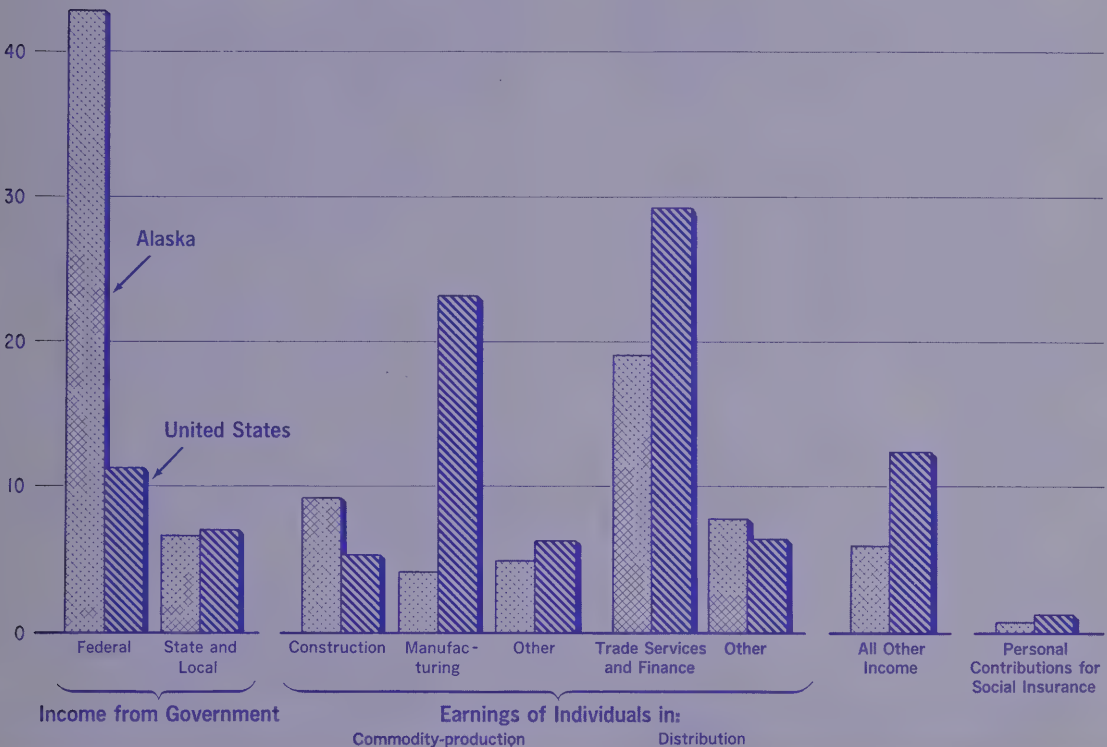
Item	1950		1959	
	United States	Alaska	United States	Alaska
<b>Personal income</b> .....	100.0	100.0	100.0	100.0
<b>Government income disbursements</b> ...	16.1	51.8	18.1	49.5
Federal.....	10.1	47.9	11.0	42.9
Net civilian earnings.....	2.9	19.3	3.2	19.2
Military earnings.....	1.7	25.7	2.0	20.2
Other.....	5.5	3.0	5.8	3.5
State and local.....	6.0	3.9	7.1	6.6
<b>Earnings of persons in private industry</b> .....	72.7	43.9	70.3	45.2
Commodity-producing industries.....	37.1	24.7	34.4	18.2
Contract construction.....	4.8	12.0	5.3	9.2
Manufacturing.....	23.4	4.2	24.1	4.1
Fish processing.....	2.2	.....	.....	.6
Other manufacturing.....	.....	2.0	.....	3.5
Mining.....	1.6	3.5	1.2	1.9
Fishing.....	.....	3.0	.....	1.7
Agriculture.....	7.4	1.9	3.9	1.2
Distributive industries.....	35.6	19.2	35.9	27.0
Trade.....	16.8	9.2	15.7	10.2
Services.....	8.9	4.2	9.9	6.8
Transportation.....	4.7	4.4	4.1	5.5
Finance.....	3.1	1.0	4.0	2.1
Communications.....	2.0	.5	2.2	2.5
<b>Less: Personal contributions for social insurance in private industry</b> .....	.7	.3	1.4	.7
<b>Other income</b> .....	11.9	4.5	13.1	6.0

## Income Sources Differ Widely in Relative Importance in the United States and Alaska

Chart 2

Percent of Total Income, 1959

50



fits, payments to veterans, and disbursements for welfare and relief purposes.

State and local government payments generally encompass the same items as do the Federal, with two differences. There is no counterpart to military payrolls, and the other items are of much lower magnitude.

### National defense

Military pay and allowances form the principal component of Federal disbursements, totaling \$112 million in 1959. Earnings of civilian employees of the Army, Navy, Air Force, and

Coast Guard add another \$50 million. Thus, two-thirds of Federal income disbursements in Alaska stem directly from the Military Establishment, and national defense payrolls (military and civilian) account for nearly one-third of all income in the State.

In the country as a whole, the comparable figure is 31½ percent, although in several States, wages and salaries paid military and civilian employees of defense agencies amount to almost one-tenth of total income. Apart from Alaska, the percentage reaches a maximum in Virginia where payrolls of the several concentrations of military installations located there (includ-

ing those received by Virginia residents of the Washington, D.C., metropolitan area) make up one-seventh of all income in the State.

While national defense is the main element in the large Federal expenditure in Alaska, it is by no means the sole factor. Persons employed by Federal nondefense agencies received nearly \$60 million in wages in 1959, and to this may be added \$20 million in the form of transfer payments, payments to holders of Federal securities, and a small amount of supplementary labor income such as jury and witness fees, military reserve pay, etc.

These income receipts by persons not connected directly with national defense account for one-third of Federal disbursements, and for one-seventh of total income in Alaska. In the other States on the average, this income source provides 8 percent of all income, with considerable uniformity obtaining among individual States.

### Health and transportation

The above-average role of Federal nonmilitary agencies mainly reflects two situations peculiar to the State: transportation conditions, and the special attention given the native population, particularly with regard to health problems.

Alaska's comparatively great distance from outside markets; the physical and climatic barriers to travel within the State; the long distances between intrastate markets; the small population; and the high cost of transportation facilities have all combined to yield conditions that make the development of an adequate transportation system difficult, but highly essential.

For example, with a land area one-fifth that of the remainder of the continental United States, there are approximately 4,500 miles of roads in Alaska. This is the equivalent of 1 mile of road per 100 square miles of land area; in contrast, road density in the rest of the Nation is about 1 mile of road to 1 square mile of area.

It is not surprising, then, that the three largest nondefense agencies of the Federal Government in Alaska are all concerned with transportation—the Federal Aviation Agency, the Bureau of Public Roads, and the Alaska Railroad. Together they employ more than 3,500 persons and pay out nearly one-half of all wages and salaries of Federal nondefense agencies in Alaska.

Most of the remaining portion of Federal nondefense payrolls is disbursed by agencies concerned with problems of native Alaskans. Reference here is to the more than 1,700 employees of the Public Health Service and the Alaska Native Service. The first of these agencies, which employs upwards of 1,200 persons in the State, is concerned particularly with providing health services for the native population as well as with problems of research into basic Alaskan (Arctic) health problems.

The Alaska Native Service of the Department of the Interior, with from 500 to 600 employees, makes available many services designed to raise educational levels of Alaska natives and to assist in improving their economic and social conditions.

**Broad Industrial Sources of Income: Comparison of Alaska With Selected States, 1959**

State	Percent of total income received as—					
	Earnings of Federal employees			Earnings of private employees		All other income
	Civilian	Military	Total	Commodity-producing industries	Service and distributive industries <sup>1</sup>	
United States .....	3	2	5	34	41	20
Alaska .....	19	20	39	18	33	10
Maryland .....	10	4	13	27	40	19
New Mexico .....	7	6	12	27	46	15
Virginia .....	10	8	18	26	39	17
District of Columbia .....	28	4	32	5	33	30
Michigan .....	1	1	2	44	36	19
Indiana .....	2	1	2	44	36	17
South Dakota .....	4	3	7	28	43	22
Florida .....	3	4	7	24	46	24
Nevada .....	4	4	8	19	57	16

<sup>1</sup> Includes State and local government.



## Indirect effect of Federal expenditures

Federal disbursements to individuals are not a complete measure of the importance of Government as a source of income to residents of the State. The measure does not include income flowing from Federal construction projects; the operation of the DEW line and White Alice systems by the communications industry (which employs about 1,000 persons on this activity); or the income arising as a result of the many other Government purchases from industry such as transportation, fuel, and supplies. The wages and salaries, profits, and other income shares disbursed by private business selling to Government are included in the business or nongovernmental sector of the State's economy.

## State and local government

The \$37 million paid out by State and by local governments in Alaska in 1959 accounted for 6½ percent of total income—about the same proportion as in the country as a whole. This total consists largely of wages of employees, with transfer payments forming most of the nonpayroll flow.

## Composition of Private Income

Half of aggregate income in Alaska—\$281 million in 1959—is paid out by the private economy. Nine-tenths of this total is in the form of wages and salaries, supplementary labor income, and the net incomes accruing to owners of unincorporated businesses. These three types of private income have been classified according to the industry in which they were disbursed and these in turn, have been grouped into commodity-producing and distributive industries (see table 3). Since it is

## Total and Per Capita Personal Income by States, 1959

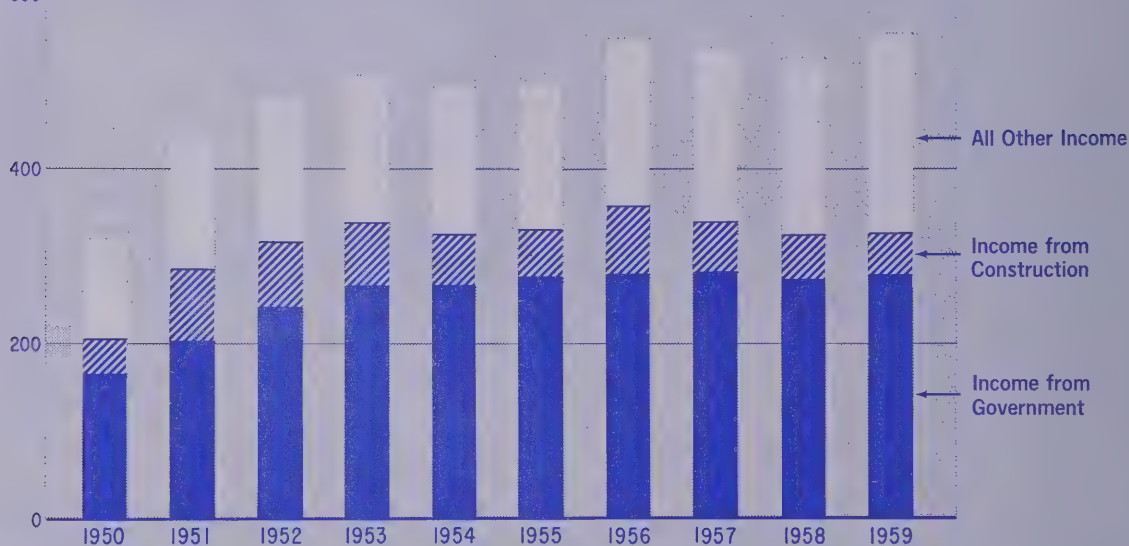
State	Total income		Per capita income	
	Amount (millions of dollars)	Percent of United States	Amount (dollars)	Percent of national average
<b>United States</b> .....	380,664	100.00	2,166	100
Alaska.....	556	.15	2,550	118
Hawaii.....	1,290	.34	2,139	99
<b>New England</b> .....	24,728	6.49	2,396	111
Maine.....	1,713	.45	1,768	82
New Hampshire.....	1,200	.32	2,010	93
Vermont.....	694	.18	1,789	83
Massachusetts.....	12,380	3.25	2,444	113
Rhode Island.....	1,837	.48	2,156	100
Connecticut.....	6,904	1.81	2,817	130
<b>Mideast</b> .....	95,896	25.19	2,540	117
New York.....	45,103	11.84	2,736	126
New Jersey.....	15,429	4.05	2,608	120
Pennsylvania.....	24,732	6.50	2,222	103
Delaware.....	1,314	.35	2,946	136
Maryland.....	7,108	1.87	2,343	108
District of Columbia.....	2,210	.58	2,943	136
<b>Great Lakes</b> .....	83,176	21.85	2,337	108
Michigan.....	17,493	4.60	2,253	104
Ohio.....	21,979	5.77	2,328	107
Indiana.....	9,712	2.55	2,102	97
Illinois.....	25,734	6.76	2,610	120
Wisconsin.....	8,258	2.17	2,116	98
<b>Plains</b> .....	30,333	7.97	1,978	91
Minnesota.....	6,660	1.75	1,962	91
Iowa.....	5,398	1.42	1,953	90
Missouri.....	9,243	2.43	2,145	99
North Dakota.....	972	.26	1,526	70
South Dakota.....	1,020	.27	1,476	68
Nebraska.....	2,797	.73	1,981	91
Kansas.....	4,238	1.11	1,994	92
<b>Southeast</b> .....	59,968	15.75	1,565	72
Virginia.....	7,058	1.85	1,816	84
West Virginia.....	3,053	.80	1,635	75
Kentucky.....	4,548	1.19	1,514	70
Tennessee.....	5,362	1.41	1,521	70
North Carolina.....	6,771	1.78	1,485	69
South Carolina.....	3,148	.83	1,332	61
Georgia.....	6,081	1.60	1,553	72
Florida.....	9,273	2.44	1,980	91
Alabama.....	4,607	1.21	1,409	65
Mississippi.....	2,528	.66	1,162	54
Louisiana.....	5,169	1.36	1,575	73
Arkansas.....	2,370	.62	1,322	61
<b>Southwest</b> .....	26,248	6.90	1,887	87
Oklahoma.....	4,138	1.09	1,786	82
Texas.....	18,041	4.74	1,908	88
New Mexico.....	1,681	.44	1,833	85
Arizona.....	2,388	.63	1,959	90
<b>Rocky Mountain</b> .....	8,575	2.26	1,990	92
Montana.....	1,318	.35	1,955	90
Idaho.....	1,187	.31	1,782	82
Wyoming.....	707	.19	2,149	99
Colorado.....	3,737	.98	2,123	98
Utah.....	1,626	.43	1,848	85
<b>Far West</b> .....	51,740	13.59	2,565	118
Washington.....	6,363	1.67	2,271	105
Oregon.....	3,842	1.01	2,171	100
Nevada.....	752	.20	2,745	127
California.....	40,783	10.71	2,661	123

not feasible to allocate the remaining types of income—rents, dividends, private interest, and business transfer payments—according to industrial origin, they have been grouped into a residual “other” category.

## Government Activities and Defense Construction Account for a Large Part of the Income Flow in Alaska

Chart 3

Millions of Dollars  
600



### Construction activity large

Among private industries, contract construction generally bulks largest as a source of income in Alaska, although in 1959 the \$51 million paid to persons employed in the industry was exceeded by earnings of individuals in wholesale and retail trade. Over the 10-year span covered by these estimates, earnings of construction workers have averaged 12½ percent of the overall volume of income, while earnings in trade have constituted 9 percent. The relative importance of construction is in sharp contrast to the 5-percent rate that prevails nationally and in most individual States.

Available data do not permit the measurement of construction activity according to type of purchaser. Nonetheless, it is clear that government demand predominates. In late 1958, for example, military construction projects

totaling more than \$200 million were underway, and an Alaska Employment Security Commission study covering the 6 months building period in 1958 records that of total contracts awarded during this time, approximately 66 percent were for defense projects; 14 percent for highways, bridges, and harbor improvements; and 20 percent for schools, airport facilities, electric plants, and private projects.<sup>1</sup>

### Commodity-producing industries

Commodity-producing industries other than construction (manufacturing, mining, fishing, and agriculture) account for less than one tenth of total income in Alaska. Mining, fish-

<sup>1</sup> Gerald C. Stromberg, "Major Industries and Employment Characteristics of the 49th State," *The Labor Market and Employment Security*, Bureau of Employment Security, U.S. Department of Labor, December 1958.

ing, and agriculture (including hunting and trapping), each comprise less than 2 percent of aggregate income, while manufacturing contributes 4 percent.

Because fishing traditionally has been considered as Alaska's largest and most basic industry, a word regarding its direct contribution to income is relevant at this point. First, the amount shown as earnings of Alaskans from the fishing industry is approximately one-half of the total paid out in the State. The other half is excluded from Alaskan income because it is received by nonresident, temporary workers who depart from the State immediately on completion of their seasonal employment. Second, a large portion of the income associated with fishing stems from other industries which are using the fish, in some stage of production, as raw material. For example, only a portion of the value of the fishery catch represents income to fishermen. The remainder pays for the capital equipment and supplies needed to operate the boats and for the gear required. These factors are discussed in a later section.

Agriculture's direct contribution of \$7 million to the State's economy represents just over 1 percent of the total income flow. Measured in terms of income, approximately two-thirds of the agricultural industry is noncommercial. More than half of this consists of the value of fish and game taken for use as food and clothing by some 24,000 Alaskans (mostly natives) living in organized villages in remote areas of the State. A smaller portion represents the net income from hunting and trapping of some 1,000 to 1,500 self-employed persons.

The net income from farming (gross income from the sale or home use of farm products less farm production expenses) amounts to about \$2 million, or less than one-half of 1 percent of all personal income in the State. Thus, commercial farming is a limited enterprise. During the 10-year span from 1948 to 1958, of the more than 3,300 attempts made at homestead farming, one-half were abandoned. Currently, there are about 400 commercial farms in the State, of which less than 200 are full-time operations.

## **Mining—past and potential**

Alaska has large mineral deposits mainly untouched and uninventoried. In 1958, there were 302 active mines in the State, with 4 percent mining coal and the others engaged in the extraction of metals. Nearly half of all establishments employed two men or less and were chiefly proprietor and partnership ventures engaged in prospecting and hand operations.

Minerals produced in Alaska since 1880 total \$1,162 million, of which more than \$700 million was in gold. Over the 80-year span, gold production has declined from an average of more than 1 million ounces annually at the turn of the century to a little more than 200,000 ounces currently. Meanwhile, coal mining has increased in importance, so that its value of production now approximates that of gold.

If prospecting activities are included, another type of mining is emerging as a major industry. In 1959, as shown in table 2, wages and salaries disbursed in the crude petroleum and natural gas industry exceeded those in any other type of mining in Alaska. Most of this payroll relates to exploration and development of oil and gas resources rather than to actual production of these commodities.

Oil discoveries have been made in two areas of the State: the first, in Naval Petroleum Reserve No. 4, on the Arctic Slope northwest of Fairbanks; the second, on the Kenai Peninsula, 40 miles south of Anchorage. With the bringing in of a producing well in the latter area, in 1957, the land acreage under oil and gas leases jumped from 6 million to more than 40 million acres. Transition from oil exploration and development to the production and refining phases with their tremendous income-producing potential waits on the discovery of oil in sufficient quantity to warrant commercial production.

## **Manufacturing limited**

Manufacturing is a comparatively minor income source in Alaska. In 1959, all manufacturing establishments in the State paid out \$23



million—4 percent of total personal income—to Alaskan residents.

Canning of seafood ranks third among major types of manufactures, with logging and sawmilling first and the production of pulp for paper second. This comparison is based on figures from which the earnings of seasonal migrant laborers have been eliminated. Such an adjustment markedly affects the seafood processing industry which is highly seasonal and by custom and contract relies heavily on migrant workers from the west coast of the United States.

### Distributive industries

The final segment of the State's private economy to be examined includes earnings in the distributive industries of trade, services, transportation, finance, and communications. These economic activities are geared to the demands of individuals for consumer goods and services and to the requirements of other businesses for intermediate products intended for use in further production.

Earnings of individuals in the five distributive industries combined totaled \$150 million in 1959, or about one-fourth of all personal income. For the Nation as a whole, the comparable percentage is more than one-third.

The lesser relative importance of service-type industries in Alaska centers in trade, services, and finance. Transportation and communications industries are relatively larger in the Alaskan economy than in that of the Nation—8 percent versus 6½ percent. Trade, services, and finance each comprise a lesser fraction of personal income in Alaska than in the Nation; taken together, they are little more than half as important.

In part, this difference in composition simply reflects the lesser demands of military forces on distribution channels. In addition, it ties back to the seasonal nature of the economy. Numerous individuals work full time in Alaska, but spend an extended vacation outside the State when weather closes down their line of activity.

This reduces consumer expenditures below the volume generally associated with a given level of income. The workers particularly affected by seasonal conditions tend to be in types of work such as construction, transportation, and mineral exploration which are carried out in the more distant and less-populated sections of the State. Accordingly, opportunities for and needs for personal consumption expenditures are at a minimum, even during that part of the year in which operations are carried on.

A third factor is the use of wholesalers outside of Alaska. In the Nation generally, merchant wholesaler sales to retailers equal one-fourth of total retail sales, as compared with one-tenth for this State.

Countering the effect of military and seasonal personnel on trade and service activities is Alaska's expanding tourist business. Because tourist expenditures are made out of income received elsewhere and are directed almost entirely to purchases of goods and services at retail, tourist business tends to push earnings disbursed in trade and service activities up as a percent of personal income.

As noted, the remaining income sources, private property income and business transfers, cannot be allocated industrially, and as they are more properly a "type" of income rather than

**Percent Distribution of Personal Income, 1950 and 1959**

Item	1950		1959	
	United States	Alaska	United States	Alaska
<b>Total Personal Income</b> .....	100	100	100	100
Wages and salaries.....	64	83	67	82
Other labor income.....	2	1	3	2
Proprietors' income.....	16	10	12	8
Farm.....	6	(1)	3	(1)
Nonfarm.....	10	10	9	7
Property income.....	13	5	13	6
Transfer payments.....	7	3	7	4
<b>Less: Personal contributions for social insurance</b> .....	1	2	2	2

<sup>1</sup> Less than 0.5 of 1 percent.

an industrial component, they are covered in the following section.

### Income by Type

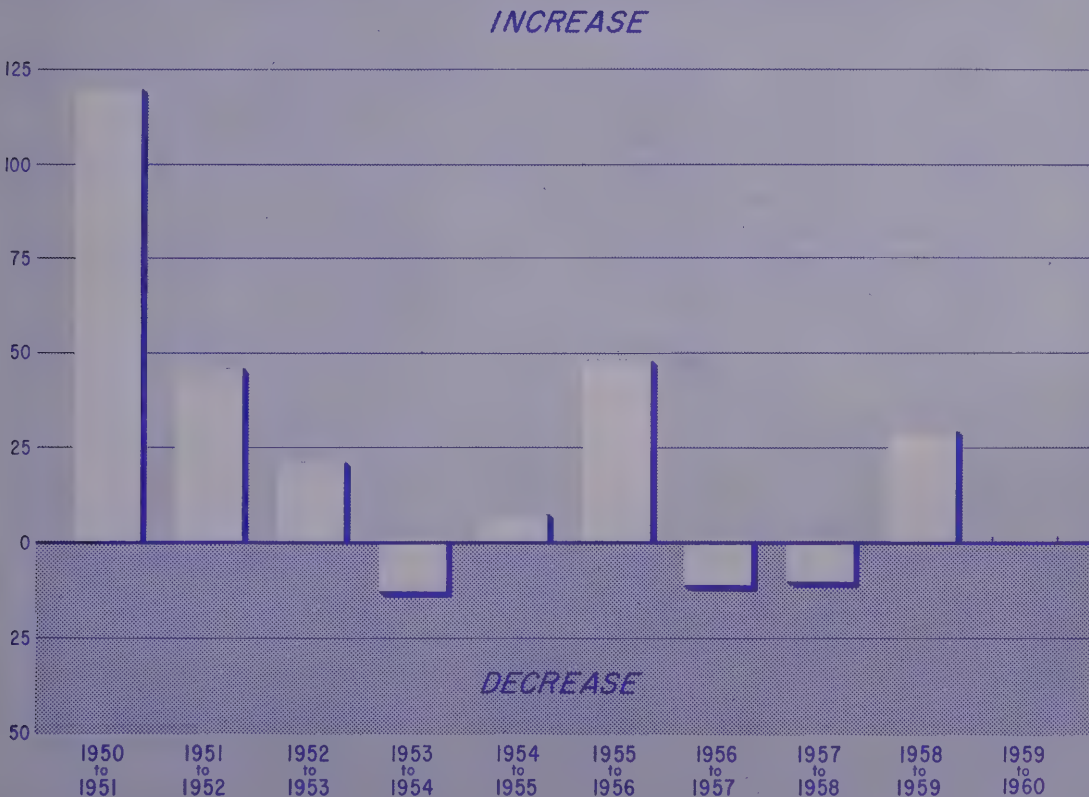
Further insight into the characteristics of an area's economy is afforded through examination of source patterns in terms of types of income. Percentage distributions of total income in 1950 and 1959 for Alaska and the country as a whole are shown in the facing table.

Two distinguishing features of the composition of income by type are the above-average importance of payrolls and the below-average proportion of proprietors' income in Alaska. These simply mirror the larger role of government and the lesser one of farming. Most of the personal income flow from government is in the form of wages and salaries; whereas income from farming is largely entrepreneurial earnings. Accordingly, in Alaska both of these factors operate to increase the importance of the wage earner as an income recipient and lessen that of self-employed persons.

### Personal Income Change in Alaska

Chart 4

Millions of Dollars  
150



Property income and transfer payments both form smaller portions of personal income in Alaska than in the Nation. The lesser role of property income in the State is attributable to the above-average per capita income here; the large amount of military payrolls in the economy; and to the fact that the average dollar return (not necessarily rate of return) on investments is smaller in Alaska.

In dollar terms per recipient, transfer payments average almost the same in Alaska as

elsewhere, and the proportion of the State's civilian population receiving transfers is closely similar to that for all States combined. The smaller proportion of transfers in the Alaskan economy reflects mainly the large number of military personnel in the State (a group that receives comparatively little in the way of transfer payments) and the high average incomes implicit in most other wage and salary components.

## INCOME EXPANSION SINCE 1950

Alaska's economy has grown. Aggregate income in 1959 was three-fourths more than in 1950; population was up more than one-half; and average incomes had climbed one-seventh. These economic gains, along with comparable rates for the Nation, are shown in chart 1 and in the accompanying text tabulation.

Percent Increase, 1950-59

	<i>United States Alaska</i>	
Total personal income-----	69	74
Per capita personal income-----	45	14
Population -----	16	54

Half of the State's net income rise since 1950 came in 1951, with most of the remainder in the 2 following years. Over this 3-year period (1950-53), income in the State rose three-fifths. Since then, it has drifted downward in 3 years and moved up in 3; on balance, the net increase was one-tenth.

The course of income over the years 1950-59 is depicted in charts 4 and 5, with the pattern given economic dimensions by the data in tables 4 and 5 at the end of this review. The first of these shows absolute changes in the State's total income flow as well as in individual com-

ponents. The second presents the same information in index form. Both are computed from aggregates in table 3.

### A Chronology of Income

The following section reviews the highlights of fluctuations in economic activity.

The increase in income in the 1951 surge—\$120 million—was a little larger than that during the next 8 years combined. Following the outbreak of hostilities in Korea, there was a swift buildup in the defenses along the Nation's northern perimeter. In 1951, wages and salaries paid military personnel in Alaska rose one-third and alone added \$28 million to the income flow.

Along with the increase in military strength, Federal civilian employment (mostly in defense installations) rose, though at a slower rate. The 1951 earnings of Federal employees were up \$6 million over their 1950 volume.

Military construction expenditures which had been maintained at an annual rate of about \$50



million since the end of World War II, suddenly tripled as military construction expenditures were stepped up to nearly \$175 million in 1951.

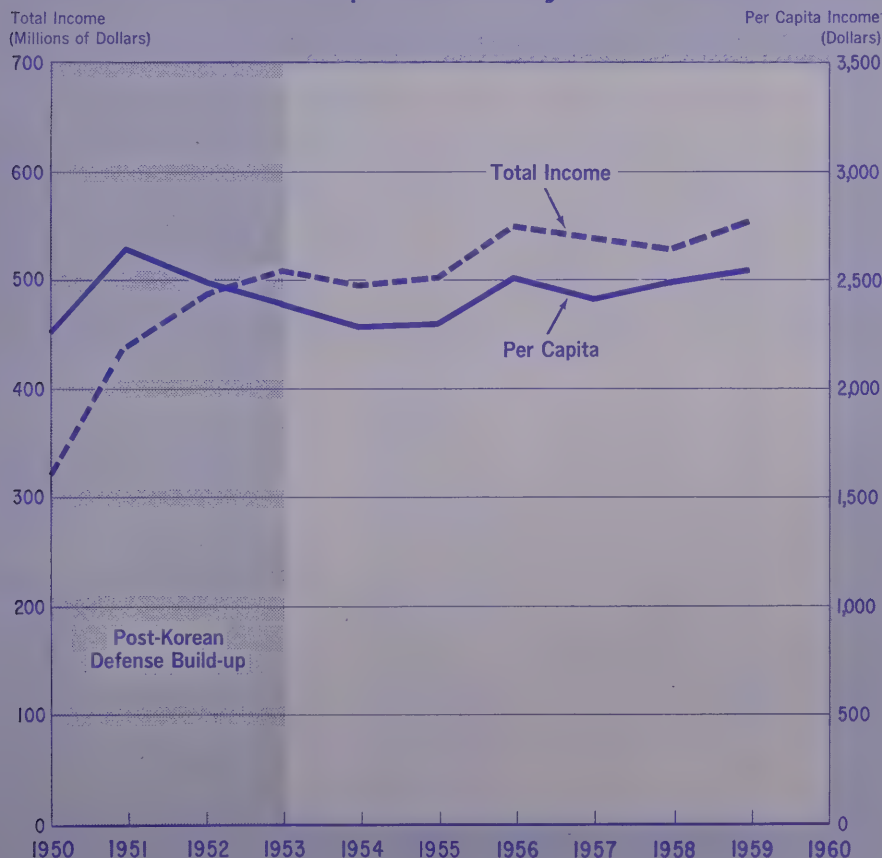
With the coming of the cold war, construction in Alaska took on a comparatively permanent nature, in contrast to the temporary structures of World War II type. Airstrips, barracks, and other facilities required by defense installations were built. The Army embarked on a \$100 million roadbuilding program designed to interconnect principal military bases by means of paved highways. Earnings

of Alaskans engaged in construction projects in 1951 boosted total income in the State an additional \$46 million over the previous year.

During the same period, earnings in the trade, services, and transportation industries rose \$32 million in response to requirements of two types. Sizable demands were made on these three industries by the upturn in government activities and by the great increase in construction activity. In addition, the population increase gave rise to a step-up in consumer demand.

Chart 5

### Alaska's Recent-Period Income Growth Was Concentrated in the Defense Build-Up Immediately After Korea.....



The income rise continued, though at a lesser rate, in both 1952 and 1953. In these two years, government disbursements made directly to individuals accounted for almost all of the increase, as construction activity slackened. Military forces were up 25 percent over 1951 (approximately double the pre-Korea level), and payrolls net of allotments sent to dependents outside of Alaska rose \$27 million.

Federal civilian employment which had risen only moderately in 1951, now entered a period of catching up with the expanded military establishment. Over the 1951-53 span, earnings of Federal civilian workers moved up \$18 million.

Private industry, meanwhile, showed a varying pattern in 1952 and 1953. Construction earnings declined and other commodity-producing industries advanced little. Distributive industries increased in 1952, but leveled off in the following year. This reflected mainly a

diminution in demand for engineering services as the planning and supervisory phases of defense construction were completed.

Another element of the near-\$200-million expansion in personal income between 1950 and 1953 was the rise in State and local government income. Initially, all State (then Territorial) and local governments together paid out \$12.5 million in income to residents of Alaska; in successive years, this total rose by \$3 million, \$1 million, and \$3 million.

### Economy levels out

As depicted in chart 5, economic growth from 1953 to 1959 was moderate. Income rose \$50 million in these 6 years, with most of the gain concentrated in the distributive or service-type industries. Government disbursements to individuals rose \$11 million, as the continued ex-

Chart 6

**The Total Income Increase in Alaska Reflects the Sustaining Force of Expanding Government Income Payments and the Impact of Sharp Shifts in Aggregate Earnings of Persons Engaged in Construction**

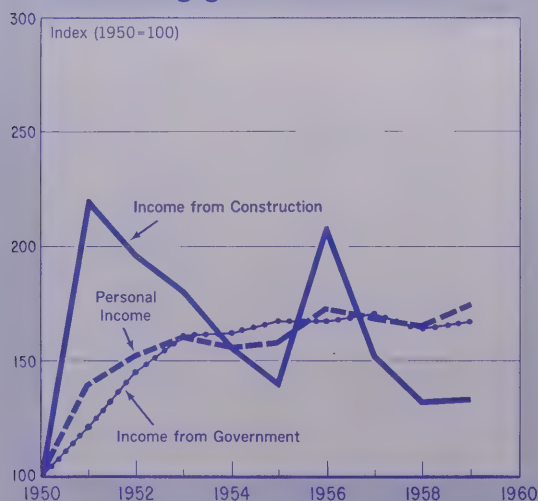
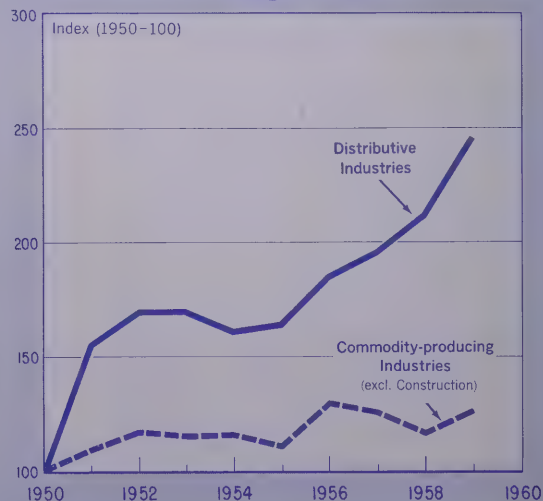


Chart 7

**The Distributive Industries Have Moved Ahead to Meet Increased Demands from Consumers and Government, but Commodity-producing Industries Other Than Construction Have Changed Little**



pansion in State and local activities more than matched a decline in Federal payments. Commodity-producing industries declined \$14 million, with the drop centering in construction.

In contrast, earnings of persons in trade, services, transportation, finance, and communi-

cations, together, increased \$47 million from 1953 to 1959. As highlighted in chart 7, most of the advance in the distributive industries occurred in the last year or two. Particularly noticeable is the rise in trade and service activity in Alaska's first year as a State.

## THE REGIONAL DISTRIBUTION OF INCOME

Total and per capita income in each of three main geographic areas of Alaska are shown for 1957 on the frontispiece map. This year was chosen because of the greater availability of data. In particular, 1957 covers the most recent period for which the State Employment Security Commission has prepared tabulations of payrolls by areas, and for which a substantial amount of information on proprietors' incomes and property income was available from the State Department of Taxation.

These special tabulations provided an adequate basis for local-area income measurement, though the data are less comprehensive than those for the State as a whole. The regional figures, despite a lesser degree of reliability, are satisfactory for measuring the geographic distribution of consumer markets; for portraying major differences in regional economies; and for establishing the overall economic position of each area.

### Geographic Characteristics

Alaska's 586,000 square miles cover a diverse and heterogeneous area. The regional classification followed here is that used in a study by the Alaska Employment Security Commission, which divides the State into three regions: Southeast, Southcentral and Interior, and North and West.<sup>2</sup>

*Southeast Alaska* is a 500-mile stretch of mountainous land and archipelago forming a "panhandle" reaching down from the main part of Alaska toward the State of Washington. Ketchikan, its southernmost major city, is 700 miles north of Seattle, Wash. The climate is similar to that of western Washington and Oregon, with January temperatures averaging 30-35 degrees and with mean rainfall totaling as much as 150 inches a year in some sections. Juneau (population 6,344), the State capital, and Ketchikan (population 6,317), the "Salmon Capital of the World," are the principal cities.

*Central Alaska* consists of the southern coastal portion of the State and the interior section extending northward. These are linked together physically by the Alaska Railroad and a limited highway system and economically by the "defense mission" of both areas. The southern section resembles the Southeast in climate. Anchorage, the State's largest city, is located here. To the north are the high mountains of the Alaska Range with sheltered valleys suitable for farming. Beyond these is the low rolling country of the interior, which, though having some fertile topsoil, is largely an area of permafrost or permanently frozen subsoil which makes farming both difficult and

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<sup>2</sup> *Financing Alaska's Employment Security Program, Volume II, Analysis of the Alaska Economy and Its Future Outlook*, George W. Rogers, Alaska Employment Security Commission, Juneau, Alaska, October 1958.



costly. This northern portion of the Central Region contains Alaska's second largest city, Fairbanks.

Economically, the Central Region is diverse and well-endowed with natural resources. The coastal waters of the southern portion provide about one-third of the fish caught in the State. Here are located the chief farming areas: the Matanuska Valley in the South and the Tanana Valley in the North. In them, is carried on more than 70 percent of Alaska's commercial farm production. The most recent petroleum discoveries were made on the Kenai Peninsula near Anchorage in the south. Finally, this region contains the major Air Force, Army, and Naval bases so important to the State's economy.

*Western Alaska* embraces the remaining portions of the State to the west and north. The area is very heterogeneous in climate, resources, and people, and is the most sparsely settled of the three regions, averaging one inhabitant per 10 square miles. In it live most of the State's native population and here are practiced the pursuits that characterized prewar Alaska—gold mining, fishing, hunting, trapping, and sealing.

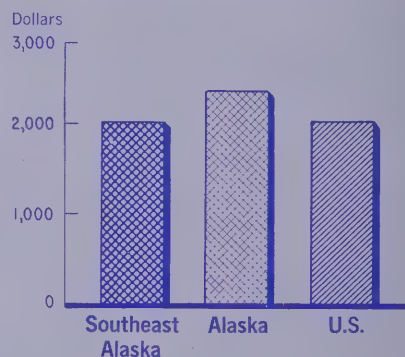
## Economic Characteristics

Below are the estimates of total income, population, and per capita income in 1957 for each of the three geographic areas of the State. Differences in average incomes are portrayed in the associated charts, with State and national averages included for comparison.

Area	Total income (millions)	Population (thousands)	Per capita income (dollars)
The State.....	\$537	223	\$2, 408
Southeast.....	71	35	2, 025
Central.....	415	154	2, 695
West.....	51	34	1, 500

More than three-fourths of total income is concentrated in the Central area, while residents of the Southeast and West receive one-eighth and one-tenth, respectively. This uneven geographic distribution of aggregate income reflects mainly the location of population, but area differentials in per capita income are substantial. In the large Central area, average incomes are one-tenth above the State figure; in the Southeast, they are one-seventh below; and in the West, they fall short of the

## PER CAPITA INCOME



overall State per capita by nearly two-fifths.

Compared with the Nation, regional incomes in Alaska range from a point one-fourth below the national average in the West to a figure one-third higher in the Central portion. In the economically more mature Southeast, average incomes are virtually the same as in the Nation. Noteworthy is the fact that per capita income in western Alaska, lowest of the 3 areas, is almost half again as high as in the low-income States of the Nation.

## Regional income structure

By areas, income composition differs appreciably in Alaska. Broad variations are depicted in chart 11. Although the income

detail shown is not so great for the individual subareas because of the lesser reliability of the estimates, several differences are readily seen.

The Southeast is the most diversified of the three regions and the least dependent on the Federal Government as an income source. With comparatively few military personnel, it has a substantial private economy based on exports of natural resources—largely fish and

tion and development work in this industry has been a recent stimulus to economic expansion.

The West is the least developed and least accessible of the three regions. Its economy reflects the influence of a large number of military personnel in relation to civilian population, and the presence of a native economy based mainly on fishing, hunting, and trapping, with seasonal employment provided by the fish canneries.

Chart 9

### PER CAPITA INCOME

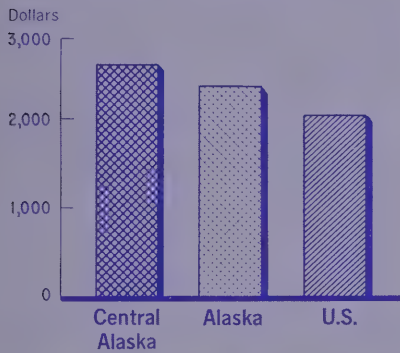
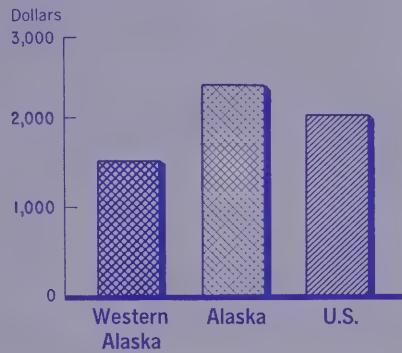


Chart 10

### PER CAPITA INCOME



timber products. More than half of all manufacturing in Alaska is carried on in the Southeast.

The Central area is the center of Federal defense activities, and its private economy is oriented in large degree to servicing the direct requirements of Government or the personal consumption requirements of Federal employees, military and civilian. This section contains more than nine-tenths of all construction and communications activity in the State—the two high-wage industries that have much to do with the comparatively high per capita income level that prevails.

The Central section has an unknown potential in petroleum and gas resources. Explora-

### Population Characteristics

Population differences also serve to distinguish the three areas. In the West live three-fifths of the population native to the State. These, in turn, make up three-fifths of all persons in the area. An additional 15 percent is accounted for by troops, and one-fourth by the nonnative civilian segment.

A sizable proportion of Southeast Alaska's population is of native stock—largely Indians—and military personnel are comparatively few. Central Alaska, in contrast, has more than four-fifths of all military forces and the smallest native population of any of the regions.

## PER CAPITA INCOME

The discussion which has been confined mainly to total personal income is turned now to the State's position as expressed in per capita terms. Such an average, obtained by dividing income by population, is a "per person" and not a "per income recipient" or "per worker" measure. Before consideration of per capita income generally, attention is turned to a brief consideration of two special aspects of the average in Alaska: Its relationship to consumer prices, and the composition of overall per capita income.

### Consumer Prices

Traditionally, Alaska has been considered a "high-income and high-cost" area, and to a degree, such a classification is correct. At \$2,550, average incomes in 1959 were one-fifth above the national figure. But, the cost of living is also high compared with that prevailing elsewhere.

No available measure combines satisfactorily into an overall cost-of-living index the prices paid for the many goods and services purchased in varying proportions by Alaskan consumers throughout the State. Nonetheless, the fact that prices of individual items are higher in Alaska than in the Nation as a whole in nearly every major instance is a clear indication that living costs are higher. Qualitative evaluation of prevailing prices points to a differential of one-fifth or more.

Thus, it appears that if prices are taken into account, per capita real income in Alaska is no higher than that in the country as a whole, at most, and possibly somewhat less.

### Average Income a Composite

In addition to prices, a second factor bearing on per capita income is the wide differences that exist among various groups of income recipients. Average income in the State is an arithmetic composite of that of four separate income groups.

The first of these comprises military personnel and their dependents who are with them. They account for about one-third of the total population.

The second, accounting for perhaps as much as one-tenth of the State's population, consists largely of native Alaskans living in rural areas and in the more than 200 villages scattered throughout the State. These persons are engaged to considerable degree in a subsistence-type economy for at least part of the year.

A third group, making up more than half the resident population, includes those participating in the commercial or market-type economy from which stems the bulk of the personal income flow. This third group consists of two subgroups: Those whose economic activities are tied to the State's natural resources such as fish, minerals and forest products; and the individuals concerned with those phases of the economy geared to military defense.

### Income of selected groups

The first step in obtaining per capita income measures for the four groups was to prepare estimates of the income received by the military population in each region of the State.



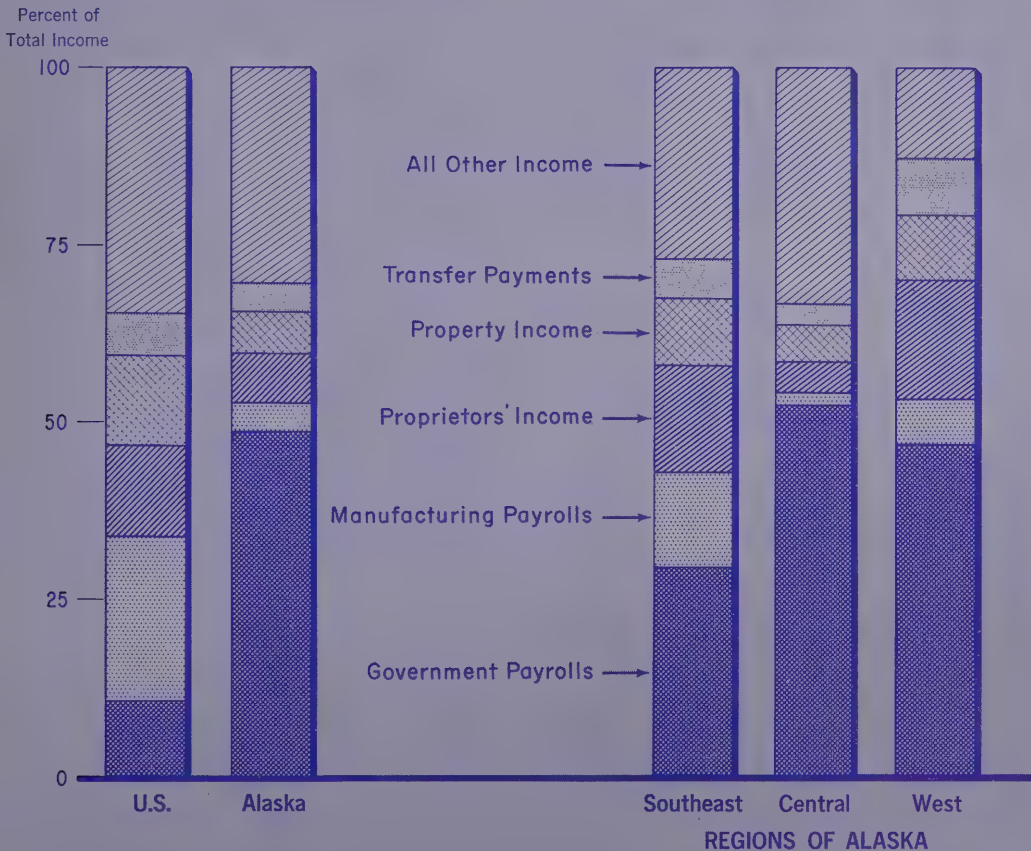
These were then combined into a single per capita figure for the total military population—the first group.

Subtraction of military income from total income by regions yielded estimated civilian income in each of three geographic areas. Per capitas were computed and that for each region was accepted as a rough guide to the per capita income of one of the three civilian groups specified above.

Per capita civilian income in the West was assumed to reflect that of the native-type economy; the Southeast was chosen as representative of the economy based on natural resources; and the Central area was assumed to represent the economy geared primarily to national defense. Repeated for emphasis is the statement that the foregoing classification is approximate only as each of the four groups has an indeterminate amount of each of the others in its economy.

Chart 11

## Selected Sources of Income in Alaska by Subareas, 1957



Listed below are the per capita income relatives for the various groups, with each expressed as a percent of average income in the country as a whole in 1957.

Military population.....	88
Native economy.....	60
Economy based on natural resources.....	100
Defense-oriented economy.....	175
 Total Alaska.....	 117
United States.....	100

Alaska's "high-income" classification is thus seen to stem from the State's defense-oriented economy located largely in the Central portion. Other areas of the State are at or below the per capita level for the country as a whole.

The comparatively high incomes of the civilian workers in the Central region of Alaska are placed in perspective when viewed in terms of a comprehensive set of prices published by the Alaskan Resource Development Board for 1958. These showed prices in Fairbanks and Anchorage, the two major cities of the region, to average 35 to 45 percent above those of comparable goods and services in Seattle, Wash.

### Changes in Average Incomes

Per capita incomes of Alaskan residents are currently well above the average for the Nation, though in 1950 the margin was even greater. In that earlier year, incomes in Alaska were half again as high as in the rest of the country. Since then, individuals' incomes have advanced but at a lesser rate than in other States generally.

While changes in per capita income in Alaska have been sharp on an annual basis, they are less so when viewed against the background of annual changes in the United States as a whole. Such a view is presented in chart 13, which shows per capita income in Alaska as a percent of that in the Nation. Revealed there is a trend in the movement of per capita income in Alaska toward the national average, a development that fits a pattern noted earlier by OBE in its various studies of the geographic distribu-

tion of income. The pattern mirrors the tendency for States of comparatively low per capita incomes to achieve more-than-average relative gains, and for high per capita areas to register increases of below-average proportion.

### Effect of Seasonal Workers

Each year a large number of persons from other States enter and leave the Alaskan work force. A portion of these represents the usual job turnover that is present in any labor force, and to which no special treatment is given in the estimation of income.

A larger part of this group consists of seasonal, transient workers estimated currently at 12,000 or 13,000. These come to Alaska for a specified period of seasonal employment within the year and then return home; they are most numerous in the construction, fishing, and fish-processing industries—each highly seasonal with peak labor demands. Wage rates received are high, and in some instances, the workers are housed and fed centrally and their earnings deposited to their accounts in out-of-State banks.

Because these individuals are counted in the population of their home State and not in that of Alaska, the inclusion of their income in the Alaska aggregate, desirable as it may be for some analytical purposes, would yield inflated estimates of per capita income. Accordingly, earnings paid this group are included with those of others in their home States, and have no effect statistically on total or per capita income.

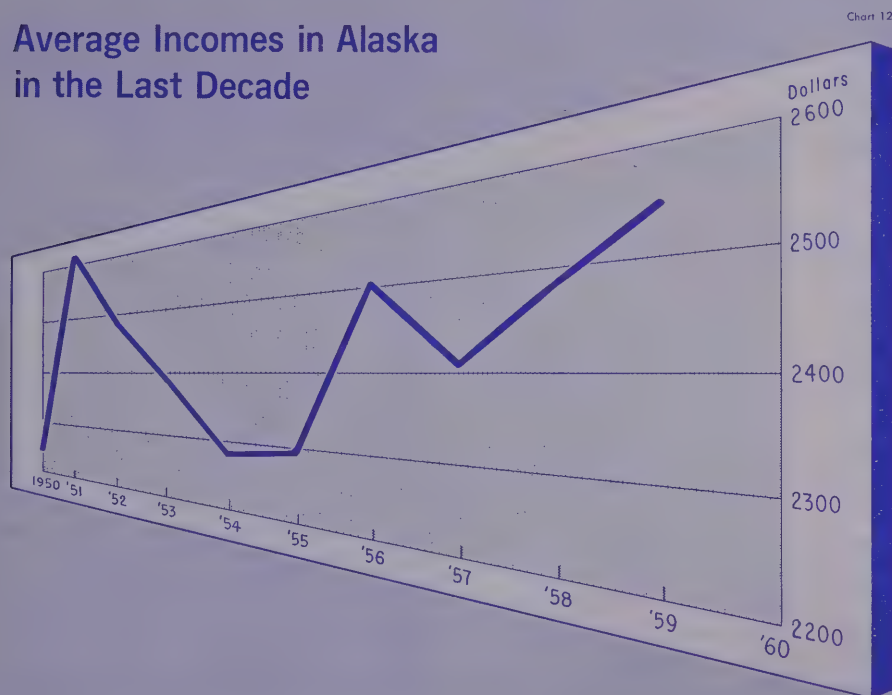
Because of the prevalent notion that wages received by nonresident, seasonal workers are a primary factor in Alaska's high incomes, attention is called to chart 14. The aggregate income received by residents of the State is contrasted with the total received by the transient labor force. Total income received by nonresident workers is generally less than 10 percent of the aggregate received by residents.

Furthermore, the income of this group has been declining in relative importance. In 1951-52, when the number was swelled by the influx of special-purpose construction workers, income paid nonresident employees reached a maximum—about \$45 million, or one-tenth as much as the aggregate income of residents. By 1959, the total, which was down two-fifths, equaled only 5 percent of personal income in the State.

### Focus of High Incomes

High per capita incomes can be traced primarily to two factors, both of which center in the wages and salary component of the overall income flow. These are (1) the higher rates paid wage and salary workers in Alaska; and (2) the above-average proportion of the State's population that participates in income-producing activities.

### Average Incomes in Alaska in the Last Decade



If the earnings of nonresidents were not deducted, but instead, the estimated number of such persons were added to the population of the State, the per capita income computed would differ from that given in this study by less than one-half of 1 percent in most years and by no more than one and one-half percent at a maximum. It is apparent then that seasonal, nonresident workers in Alaska have little direct effect on the level of average incomes.

### Nonwage income below average

The presumption that the focus of high incomes in the State is in the labor component of the economy is warranted in view of the unusually heavy weight of wages and salaries in total income. Moreover, positive evidence of the key role of employee compensation is furnished by rough measures of transfer payments, property income, and proprietors' income per



recipient. The average of each of these three types is a little less in Alaska than in the country as a whole, with the largest differential obtaining in property income.

Accentuating the below-average receipts of nonwage and salary income on a per recipient basis, is the lesser proportion of the population receiving nonwage income. This appears to be a reflection of the comparatively large number of persons engaged in construction, fishing, and military service. Because of the nature of these industries, particularly the specialized types in Alaska, persons employed are less likely to make the investments necessary to generate property and proprietors' income, and, in addition, are more likely to be in the age group where transfer payments do not furnish an appreciable part of total income.

### Average wage rates

The importance of wage rates in determining per capita income is evident from the data in the following table which gives average weekly wages in Alaska and the United States in 1959 for various industries. Wage data relate to industries covered by State unemployment insurance programs (including the Federal Government) and to the armed forces. Excluded are State and local governments and those industries not covered by State unemployment insurance. Weekly rates are used in preference to annual averages in order to minimize distortions introduced by differential practices in the Nation and the State with respect to dual job-holding and to job turnover.

Weekly wages in Alaska in 1959 were one-sixth higher than the national average. Payrolls in private industry in the State were half again as high as in the Nation, with the largest differential obtaining in the contract construction industry, where compensation in Alaska on a weekly basis was double that for the country as a whole. Next largest differences—about 50 percent—were in mining, trade, and services.

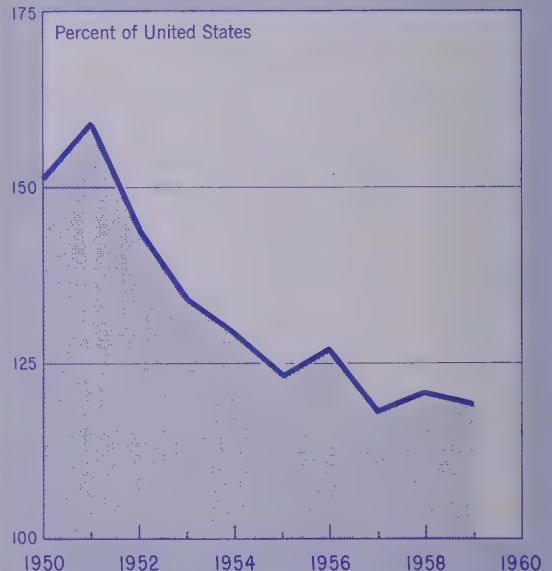
Pay of Federal nonmilitary employees in Alaska averaged one-sixth more than in the

other States. Together, payrolls of civilian employees—public and private—averaged two-fifths more in Alaska than in the rest of the country.

Military pay calculated on a weekly basis is only half the civilian wage. This is significant in view of the importance of military earnings in Alaska's income structure. The less-than-average status of military pay in Alaska results from a combination of factors, chief among them being the dependency allot-

### Per Capita Incomes in Alaska Have Moved Toward the National Average Over the Decade

Chart 13



ment system. In income measurement, military allotments to dependents are allocated to the State in which the dependent resides, without regard to the State in which the serviceman is stationed and from which the allotment is sent. Because the outflow of dependency allotments from Alaska is greater than the inflow, military pay in the State tends to be less than average even though there are other factors operating counter to this influence.

In evaluating military pay rates, it should be noted that comparison is being made with unusually high civilian pay scales. Military pay in Alaska is about the same as in the country as a whole.

A partial offset to the higher weekly wage rates that prevail is the shorter working season imposed by weather conditions.

In private industry as a whole, the work season in Alaska is about one-seventh less than in the Nation, with the widest differential in manufacturing (a difference due mainly to the predominance of fish canning in Alaskan manufacturing). The inclusion of Federal employees, both military and civilian, in the computation extends the average work season in Alaska and cuts the disparity in the length of work year from about 14 percent below that in the country as a whole to within 5 percent of the overall average. The differential, though small, counteracts part of the effect of high wage rates.

### Labor force participation

The second factor primarily responsible for relatively high per capita incomes in Alaska is the above-average labor force participation that prevails. Currently, the proportion of the total population gainfully employed in Alaska is about 10 percent above the national rate.

It may be noted from chart 15, that in terms of past experience, this differential is at a low point. In all other years of the period, the State's labor force participation rate has exceeded that in the Nation by margins of 15-30 percent, and, in most years, has contributed more to the high-income position of Alaska than has the above-average wage rate.

In summary, then, the larger percentage of the population working in Alaska had the effect of pushing per capita incomes up about 5 percent in 1959 (but much more in earlier years), while higher rates of pay tended to lift them approximately one-sixth. Countering these upward pressures are a myriad of other forces, largely unmeasurable, but which include the less-than-average income from transfers, property, and proprietors' incomes, and a shorter

Average Weekly Wages, 1959

Item	Amount		Alaska as percent of United States
	United States	Alaska	
UI-covered industries:			
Private industries .....	\$91	\$138	152
Mining .....	107	164	153
Construction .....	104	214	206
Manufacturing .....	101	129	128
Transportation, communications and public utilities .....	102	121	119
Trade .....	76	115	151
Finance .....	91	110	121
Services .....	71	105	148
Federal civilian .....	103	121	117
Total civilian .....	92	131	142
Military .....	75	67	89
All industries .....	90	105	117

annual work season. On balance, these counter forces currently have reduced average incomes in the State to a net margin about one-fifth above the United States.

### Changes over time

The close relationships between wage rates, labor force participation rates, and per capita incomes hold over time as well as currently. In chart 15 the value of each of the three measures in Alaska is expressed as a percentage of the corresponding national average. Year-to-year shifts in the State's per capita income standing are readily explained, in a statistical sense, by relative changes in one or both of the other measures. It is clear that both wage rates and labor force participation are characterized by pronounced secular trends that move down toward national averages. A similar movement characterizes the State's average income relative to the Nation.

### Military and Civilian Incomes Contrasted

On balance, military pay and allowances reduce the margin by which per capita income in

Alaska exceeds that in the Nation. Per capita income of the military population is two-thirds that of civilians. Average incomes of the civilian population (total population less mili-

tary personnel and their dependents) are one-third higher than the national figure, and 50 percent above those of the military forces stationed in the State.

## SPECIAL FEATURES OF THE ECONOMY

The remainder of this report covers (1) a summary of changes in real income; (2) a discussion of the effects of the seasonal nature of the economy; and (3) an examination of the role of the fishing industry in income structure.

showing monthly variations in private employment covered by the State's employment security program within each year since 1950. A moderating trend is evident in the narrowing of the differential between the seasonal peaks and troughs.

### Changes in Real Income

The official estimates of personal income by States are expressed in prices that prevail in each State at the time to which the income figures relate. Due to lack of data, no adjustments are made to eliminate geographic price differences from the figures. However, it is feasible to adjust the income figures in a particular State for changes in prices over time and thereby arrive at a measure of change in real income or consumer purchasing power.

Since 1950, consumer prices in Alaska have risen more than one-fourth and, as elsewhere, have absorbed a large share of income expansion. Allowing for this price rise, total purchasing power in real terms has advanced about two-fifths since 1950, in contrast to the gain of three-fourths in current dollars. It is evident that per capita real income was less in 1959 than in 1950.

### Seasonal Variations

The seasonal nature of Alaska's economy is illustrated by the following tabulation

Year	Covered employment in—		Percent low month is of high
	High month (thousands)	Low month	
1950-----	38.2	14.4	38
1951-----	49.6	18.2	37
1952-----	50.0	19.7	39
1953-----	45.3	20.4	45
1954-----	39.0	19.7	50
1955-----	40.3	18.5	46
1956-----	42.4	20.8	49
1957-----	41.9	21.5	51
1958-----	38.3	21.0	55
1959-----	37.2	22.5	60

The tabulation exaggerates the seasonal picture in Alaska by the omission of government employees, a group that generally exhibits comparatively little seasonal fluctuation. Against this omission of a stabilizing influence must be balanced the absence of a number of highly seasonal types of activity such as farming, fishing, hunting, and trapping.

Available data do not permit definitive monthly estimates of total employment. Rough approximations, for which statistical measures are lacking, indicate that in recent years the employed labor force at its seasonal high is from two-fifths to one-half larger than at its



seasonal low. This means that some 30,000 to 40,000 persons are idle during a part of the year or that a considerable number of workmen must be brought into the State on a temporary basis in order to meet seasonal labor requirements.

It appears that a combination of the two alternatives is used. About one-third of the requisite pool of seasonal employees is made up of temporary, nonresident workers. As much as an additional one-fourth of this "surplus" labor pool appears to consist of full-time residents of the State who are, except for seasonal work, unemployed. The remainder of the employment differential between the high and low months is composed of those persons drawn temporarily into the labor force by the attractiveness of work offers during the period of peak demand.

Chart 16 shows the impact of seasonal activity on the wage and salary disbursements made

by the construction industry in 1957. It is emphasized that the figures are not intended as statistical measures but are approximations shown for illustrative purposes.

The shaded area at the bottom of the chart marks the proportion of total payrolls received by permanent, full-time construction employees residing in Alaska. For several months of the year, they constitute the industry's total work force. At the peak of the season, however, they comprise less than one-third of the total. The average monthly wage of year-round employees does not differ greatly from that of seasonal workers, but because of their longer work-period during the year, they receive nearly one-half of total wages and salaries disbursed.

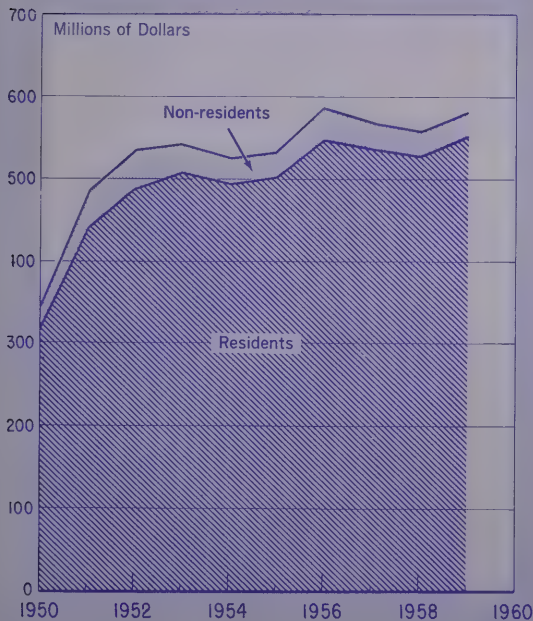
A second large group of workers consists of full-time residents of the State, employed in the construction industry as the weather moderates and work is resumed on projects previously closed down by adverse weather. These persons are drawn into construction activity from other industries, from the unemployed labor force, or from groups basically outside the labor force but that work each year during the months of peak labor demand.

These resident, seasonal employees comprise about half of the construction labor force at summer peak. Because they are employed on less than a year-round basis, their annual wages from construction employment average less than one-third those of full-time employees in the industry. In the aggregate, temporary employees account for between one-third and two-fifths of total payroll disbursements in construction.

The final group, whose wages are shown in the top "layer" in the chart, consists of seasonal, transient workers brought into the State for a specified work season. In many instances, they are provided food and living quarters, and their wages deposited to their accounts outside of Alaska. As has been noted, earnings of such seasonal workers are not included in Alaska's income flow but in that of the State in which they maintain residence. For a measure of the importance of all seasonal transients in the overall economy of the State, reference is made

Chart 14

### Total Personal Income Received by Seasonal, Nonresident Employees in Alaska is Comparatively Small in Relation to Aggregate Income of Residents



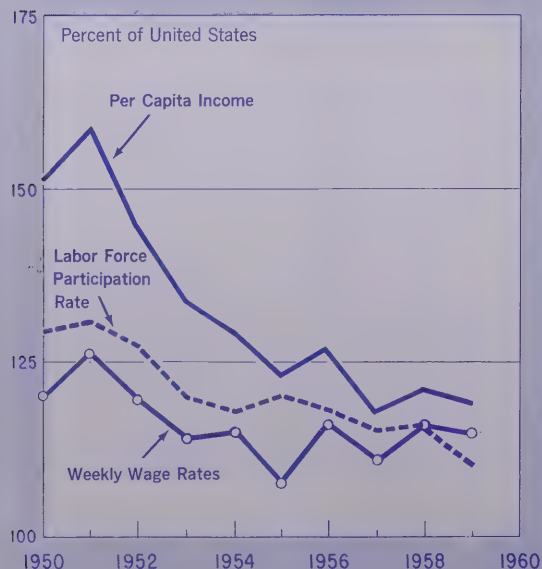
to chart 14. Shown there are the estimated net wages and salaries received by seasonal workers from out-of-State for the entire period covered by these estimates.

A measure of the effect of seasonality is afforded by the State's unemployment insurance program. The ratio of insured unemployment to the total covered work force ranges from a fractional 1 percent to as much as 25 percent over the course of a 12-months period. In recent years, covered unemployment has averaged 12 percent, more than three times the national rate. Similarly, the ratio of benefits paid to taxable wages has been nearly 4 percent, again well above the rate for the Nation. These rates, it is emphasized, reflect the type of unemployment insurance program adopted by the State, and the seasonal nature of the economy.

Although the impact of seasonal, out-of-State workers on the overall economic flow is a matter for further study, the effect of this group on the State's UI program is clear cut.

Chart 15

**In Alaska, Wage Rates and the Proportion of the Population Employed Have Both Declined Relative to the Nation. As a Result Per Capita Income Relatives Have Moved Down**



In the aggregate, these transients draw sizable benefits.

Since 1950, approximately \$15 million in unemployment insurance benefits have been disbursed to claimants earning the right to such benefits in Alaska, but collecting the compensation while residing outside of the State. Contrasted with this outgo is a counterflow totaling just over \$2 million, which represents unemployment insurance benefits collected from other States by workers residing in Alaska.

In 1958, almost four-fifths of total UI benefits paid to claimants residing outside of Alaska were to persons whose last employment in Alaska had been in construction or salmon canning—the two industries that employ most nonresident, seasonal workers.

The State's Unemployment Compensation Fund has experienced an operating deficit in each of the last 8 years, and benefit reserves have declined from a surplus of \$9 million in 1950 to a deficit of more than \$6 million in 1959. This deterioration in the benefit reserve has developed with an effective tax rate double the average for the Nation, where, however, the funds operate under quite different conditions. In contrast, the smaller tax rates prevailing in most States, with a broader and different economic base, have permitted the growth of a reserve which for all States combined amounted to nearly 8 percent of total taxable wages in 1957.

## The Fishing Industry

Since Alaska was acquired from Russia in 1867, about three quarters of a billion dollars in gold has been taken from its mines. Over the same span, the value of the fish harvest has been three times as large, or more than \$2 billion.

Often the State's fishing industry is termed a "\$100 million-a-year business"—an amount representing the wholesale value of seafood produced in years of a good fish catch. The \$13 million figure shown in the addendum to table 3 represents the total earnings of

Alaskans engaged in the fishing industry in 1959.

In relating the \$100-million market value of fish to the \$13-million total in the State's personal income flow, two facts should be noted. The smaller figure specifically excludes items such as undistributed corporate profits, corporate profits tax liabilities, and excise taxes and business licenses. These are all items which, though reflected in the value of the processed fish, are excluded from the personal income aggregate because this latter is not a measure of economic production but of income received by persons. Secondly, certain items which are part of the costs of processing the fish, and hence are in the overall wholesale value, are classified in the income flow as income originating in some industry other than fishing.

Examples of the latter point include payrolls of a wholesaler who purchases fresh fish from fishermen and sells to retailers, and the payrolls and other income disbursements of the industries which supply the fishing industry with materials and services. In the industrial classification of personal income used in this report, these items form part of earnings of persons engaged in trade, business services, transportation, or some other industry.

The following rough allocation has been made to show the relationship of the wholesale market value of fish caught and processed in Alaska in 1954 (the year for which the data are most adequate) to the earnings of persons engaged directly in fishing or fish canning.

The first two items in the tabulation cover earnings of wage workers and self-employed persons engaged in fishing or in the canning of fish. The first of these—\$15 million—is an explicit item of personal income and corresponds to the figure in table 3. The second item—\$16 million—is directly comparable to the first, but because it is paid to residents of other States, it is not counted in Alaska's income flow.

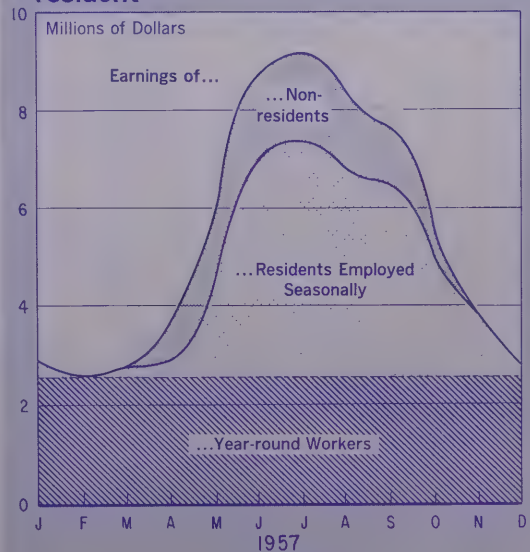
Production expenses of fishing boats—item No. 3—cover the expenses incurred by fishermen in taking the fish from the waters. They include fuel, nets, supplies, maintenance, depreciation, etc., on the ships and boats—owned individually or by companies—used in fishing.

Expenditures by the boat operators, of course, generate income in trade, boatbuilding, transportation, and other industries which supply goods or services to the fishing boats. To the

		Millions of dollars
Earnings of Alaskans engaged in :		
Fishing .....	11	
Canning of seafood.....	4	
		15
Earnings of nonresidents engaged in fishing and canning of seafood.....	16	
Production expenses of fishing boats.....	12	
Costs of preparing fresh, frozen, and cured fish for the wholesale market.....	4	
Cost of supplies, fuel, and energy utilized in fish canning .....	9½	
Approximate value added by manufacturing ex- cluding wages and salaries and taxes.....	19	
Taxes and licenses paid the State.....	2½	
Total.....	78	

### Strong Seasonal in Construction Requires the Use of Temporary Employees, Both Resident and Non-resident

Chart 16





extent that the industries supplying the fishermen are located in Alaska purchases from them swell the personal income flow, but the income so generated cannot be identified.

Four million dollars is expended in preparing and transporting fresh, frozen, and cured seafood from fishing boats to the wholesale market. Again, expenditures made to Alaskan companies participating in this phase of production enter the personal income flow in the State, but are classified as originating in industries other than fishing.

Most of the remainder of the total wholesale value of fish produced in Alaska—\$28½ mil-

lion—is accounted for by the food-processing industry. Cost of supplies (largely containers), fuels, and electric energy make up \$9½ million, while the value added by manufacturing less payrolls comprises the final \$19 million. Essentially, this latter figure embraces interest, profits, inventory change, and depreciation.

The final item of \$2½ million is the amount of licenses and taxes collected from the fishing industry. Although these business taxes are excluded from the personal income flow, they enter the overall value of fish produced. These taxes do not include personal or corporate income taxes.

## Technical Notes

This appendix provides a summary statement on definitions, sources of data, and methods of estimating personal income in Alaska.

Those interested in further detail are referred to OBE's supplement to the *Survey of Current Business*, "Personal Income by States Since 1929." This 1957 bulletin includes a review of long-term shifts in the geographic distribution of income; a general description of the personal income series including its nature, scope, and relation to other income and product accounts; a discussion of definitions and terms; a detailed explanation of sources and methods; and a section comprising 80 tables of State and regional data. These tables are updated annually in the August issue of the *Survey*.<sup>3</sup>

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<sup>3</sup> "Personal Income by States Since 1929" may be obtained from the Superintendent of Documents, U.S. Government Printing Office or from any Department of Commerce Field Office at \$1.50 a copy.

The Alaska estimates are in full accord with the concepts used for all States. Except where noted, the sources of data and methods of estimation underlying the Alaska figures correspond to those used for the other States.

## Nature of State Income

Personal income is the current income received by residents of a State from all sources. It is measured before deduction of income and other direct personal taxes, but after deduction of individuals' contributions to social security, government retirement, and other social insurance programs.

Personal income is the most comprehensive economic measure available on a geographic basis. It covers the income received by residents of a State from business establishments, Federal and State and local governments, households and institutions, and foreign coun-

tries. All forms of income flowing to persons from these sources are included—wages and salaries; various types of supplementary earnings termed “other labor income”; the net incomes of owners of unincorporated businesses (including farms); net rental income; dividends, interest, and government and business “transfer payments” (consisting in general of disbursements to individuals for which no services are rendered currently, such as unemployment benefits, relief, and veterans’ pensions).

Each of these various types of income is measured as the summation of separately estimated components. For example, wages and salaries and proprietors’ income are derived by individual industries; transfer payments, by the numerous types of disbursements comprising this category. Total personal income in the State is thus built up from an extensive array of component detail.

Per capita income is derived by dividing total income by total resident population. Because official intercensal estimates are not yet available, the population figures used in this report were derived as follows: The Census Bureau’s postcensus, midyear estimates of civilian population for the period 1950–59 were adjusted by OBE (with the aid of unpublished Census data) to take account of the 1960 Census of Population count in Alaska. To these civilian data were added average annual military strength as computed from monthly or quarterly data furnished by the armed services.

## General Statistical Approach

In large degree, Alaskan income was estimated from records showing business and government disbursements to individuals. With one major exception discussed subsequently, relatively little use was made of records based on individuals’ reporting of their income. Measurement at the point of disbursement

rather than receipt is the more reliable approach, since business and government records are generally superior to those of individuals.

The statistical approach adopted in estimating income was quite detailed. More than a hundred series of separate estimates went into the derivation of the Alaskan income totals.

The chief purpose of such a detailed effort was to take advantage of all available sources of information, and thus to minimize errors that stem from the estimation of broad components on the basis of data differing in scope or internal composition. Also, building up an income total through the use of aggregate data helps to insure completeness in that each item of income is accounted for explicitly. Moreover, this type of approach brings into play the potent factor of “offsetting errors.” The tendency for errors in underlying components to compensate in the totals is a phenomenon observed repeatedly in the field of national income measurement when a detailed, careful statistical procedure is followed.

Finally, a basic criterion was that the estimates should be directly comparable to those for the other States. To this end, the national totals of OBE’s estimates of personal income by States were used as a “frame of reference.” To the extent possible, the same sources and methods used in the State series were incorporated into the Alaska figures. Where the data situation forced a departure in methodology, care was exercised to preserve comparability by the use of Alaska-U.S. relationships derived from related series of data.

Because of the variety of source materials and procedures used in preparing the income estimates, the statistical reliability of the overall series is not subject to quantitative measurement. Instead, assessment of reliability must be in terms of a qualitative appraisal based on a study of the estimates by the user.

There follows a general statement regarding the nature of the data and methods of estimation underlying each of the main components. No attempt is made to outline procedures in detail.

## **Wage and Salary Disbursements**

Payroll disbursements are measured before individuals' payment of withheld or other types of direct personal taxes. They are also measured before deductions for social security contributions. Although thus included in wage and salary disbursements, employee contributions under the various social insurance programs are excluded from personal income by means of an explicit deduction for "personal contributions for social insurance."

## **Industries covered by UI**

Estimates of wages and salaries are built up from separate series for numerous individual industries. The most important source of information is the tabulations of wages and salaries paid under the State unemployment insurance (UI) program, which covers virtually the whole of industrial and commercial employment in Alaska.

Industries based principally on UI data account for three-fifths of total payrolls in Alaska, currently. Until Federal civilian employees were covered in 1956, the fraction was two-fifths. This fact is of key significance because the payroll data yielded as a byproduct of the administration of the State unemployment insurance law are of excellent quality.

Despite the comprehensiveness of UI data, gaps had to be filled to obtain complete coverage. For example, to the UI figures were added wages and salaries of Federally chartered credit unions, earnings of insurance solicitors on a commission basis, and tips in retail trade, transportation, and various service industries. Generally, estimates of noncovered segments were based on indirect data and are less reliable

than the UI-based segment. It should be noted, however, that together these noncovered portions of UI-based payrolls account for only a small fraction of total payrolls.

## **Private noncovered industries**

Employees in railroads, private households, professional and related services, agricultural services, forestry, fisheries, and farms are generally excluded from UI coverage. Together, their wages make up less than 4 percent of personal income.

Data on railroad payrolls were obtained directly from ICC reports. In this connection, it may be noted that employees of the Alaska Railroad are classified in government and not in private industry.

Wages and salaries of farm workers and fishermen were estimated along with net incomes of self-employed persons in these industries. Derivation of the estimates is described in the section on proprietors' incomes.

Payrolls in the remaining noncovered private industries were prepared for 1950 largely on the basis of data from the census of population of that year. These benchmark estimates were extended to subsequent years by various series of related data in much the same fashion as were the comparable estimates for the other States.

## **Government civilian**

Since 1956 Federal civilian payrolls have been reported under the UI program. For prior years, estimates of the number of Federal employees and their average pay were based on data obtained from the Civil Service Commission. The product of these series was used to extend the UI-based estimates back to 1950.

Payroll estimates of State (or Territorial) and local government employees were prepared from data in the 1950 Census of Population and the 1957 Census of Governments. An extrapolating and interpolating series was derived from employment figures prepared by the



State UI Commission, together with supplementary information from municipal governments.

## Military

Military payroll disbursements are the sum of: (1) Total military cash pay earned by persons stationed in Alaska, less amounts withheld by the Government and disbursed to their dependents in the form of allotments of pay; (2) the value of food and clothing furnished without charge to enlisted men stationed in Alaska; and (3) allotments made to military dependents residing in Alaska, regardless of the individual's geographic location.

Item 1 was computed separately for officers and enlisted men of each service for 1953, 1956, and 1958, from pay-voucher data furnished by the several services. These figures were extended to other years service-by-service, by the product of military strength in Alaska and average cash pay less allotments in the country as a whole.

National averages per enlisted man were used to compute the in-kind segment of military payroll disbursements, while total dependency allotments received by residents of Alaska were determined on the basis of national relationships between the geographic distribution of military strength and civilian population.

## Proprietors' Income

The estimates of proprietors' income are discussed in three sections: farms, fisheries, and all other industries.

### Farm income

The net income of farm proprietors equals their gross income from farming less expenses of production. By omitting wages paid farm labor from production expenses, a combined estimate of wages plus proprietors' income was obtained. For data presentation, this combined

aggregate was split into wages and net incomes on the basis of sample data.

Farm income estimates were prepared in the Alaska Department of Agriculture by applying profit ratios calculated from accounting data from selected farms to estimated aggregate gross farm income for all farms.

### Income from fishing

As in the case of farming, aggregate income of fishermen was estimated for wage earners and self-employed together. Also, as with farming, the concept employed was that of gross income minus total production expenses other than wages. Requisite ratios of net profits to gross value of fish were determined by comparing the various prices paid fishermen for their catch in relation to the share of production expenses borne by the company purchasing the fish. Because of sizable variations in profit ratios, separate estimates were prepared for each type of fishing engaged in. Data from the 1950 Census of Population were used to allocate total net income between the self-employed and wage earners.

### Other industries

Benchmark estimates of the total net income of self-employed persons in industries other than farming and fishing were prepared for 1950 and 1957. The estimate for the earlier year was derived from a size distribution of the income of self-employed persons in Alaska, as reported in the 1950 Census of Population. The 1957 figure was based on a 50-percent sample of individual income tax returns that showed net income or loss from self-employment.

The two benchmark aggregates were broken down industrially and each industry interpolated and extrapolated to other years on the basis of changes in wages and salaries in the corresponding industry in Alaska as modified by national shifts in the relation of proprietors' income to wages and salaries. The individual industry estimates were summed and used to extend the 1950 and 1957 aggregate benchmarks.

## Property Income

Estimates of dividends and the monetary portions of net rents and interest received by Alaskans in 1956 and 1957 were derived from data reported on Federal income tax returns in the same manner as the estimates for other States. The relationship between monetary property income and civilian population in Alaska in 1956-57 was extended to other years on the basis of national experience in these factors. The extrapolated ratios when applied to Alaska's civilian population yielded estimates of dividends and monetary rents and interest received in 1950-55 and 1958-59.

Nonmonetary property income and interest from government was estimated indirectly as for the other States. Indirect data used included value of owner-occupied nonfarm homes, life insurance in force, Federal bondholdings, and the volume of banking activity.

## Other Income Components

The remaining three items of personal income—other labor income, transfer payments, and personal contributions for social insurance—were estimated in a manner generally similar to that used for the other States. The estimation of transfer payments is largely a task of collecting and adapting the requisite information from the fiscal records of the administering government agencies.

Other labor income and personal contributions were estimated mainly through the use of national relationships with computations carried out in considerable industry detail.

## Adjustment for Residence

As noted, income of seasonal, transient workers employed in Alaska for only a part of the calendar year are counted in the personal income flow of their home State and not in that of Alaska. Because most estimates are prepared from data on disbursements of income, rather than from records of recipients, the earnings of these seasonal transients are initially included in the income flow of Alaska, and must be transferred explicitly. The amount shifted was estimated as follows:

The Alaska Department of Taxation prepared a tabulation from a 25-percent sample of individual income tax returns filed in Alaska by nonresident and part-time residents of the State in 1957. This tabulation showed the specific months worked in Alaska, industry of employment, total earnings, and State of residence.

From these data, an estimate was made of the income of seasonal, nonresident workers in Alaska in 1957 by industry. The industry figures were extended forward to 1959 and back to 1950 on the basis of changes in the volume of payrolls in Alaska in the corresponding industry. The sum of the industry extrapolations in each year was adjusted to an all-industry control total of nonresident earnings which was based on extrapolation of the 1957 estimate by the aggregate earnings of seasonal workers in all industries combined.

The foregoing method was used in all industries except fishing, where detailed information regarding the number of nonresident commercial fishermen licensed in Alaska was made available by the U.S. Department of the Interior. For this industry, the adjustment was based on the ratio between nonresident and total fishermen for each year.

## INCOME TABLES

*Table 1.—Income and Population, 1950-59*

Year	Alaska			United States		Relative income change, 1950=100				Percent per capita income in Alaska is of U.S. average
	Total personal income (millions of dollars)	Population (thousands)	Per capita income (dollars)	Total personal income (millions of dollars)	Per capita income (dollars)	Alaska		United States		
						Total income	Per capita income	Total income	Per capita income	
1950 . . . . .	319	142	2, 246	225, 473	1, 491	100	100	100	100	151
1951 . . . . .	439	167	2, 629	252, 960	1, 649	138	117	112	111	159
1952 . . . . .	485	195	2, 487	269, 050	1, 727	152	111	119	116	144
1953 . . . . .	506	212	2, 387	283, 140	1, 788	159	106	126	120	134
1954 . . . . .	493	216	2, 282	285, 339	1, 772	155	102	127	119	129
1955 . . . . .	500	218	2, 294	306, 598	1, 869	157	102	136	125	123
1956 . . . . .	548	219	2, 502	330, 380	1, 979	172	111	147	133	126
1957 . . . . .	537	223	2, 408	348, 724	2, 052	168	107	155	138	117
1958 . . . . .	527	212	2, 486	357, 542	2, 069	165	111	159	139	120
1959 . . . . .	556	218	2, 550	380, 664	2, 166	174	114	169	145	118



*Table 2.—Personal Income by Major Sources, 1950–59*

[Millions of dollars]

Item	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
<b>Personal Income</b> .....	<b>319.0</b>	<b>439.0</b>	<b>485.0</b>	<b>506.0</b>	<b>493.0</b>	<b>500.0</b>	<b>548.0</b>	<b>537.0</b>	<b>527.0</b>	<b>556.0</b>
<b>Wage and salary disbursement</b> .....	<b>264.2</b>	<b>368.2</b>	<b>406.0</b>	<b>424.8</b>	<b>408.7</b>	<b>415.7</b>	<b>457.4</b>	<b>446.2</b>	<b>434.4</b>	<b>457.6</b>
Farms.....	.1	.1	.1	.2	.2	.2	.3	.3	.3	.3
Mining.....	10.0	9.6	11.2	10.6	8.6	8.1	8.4	9.2	8.2	9.3
Bituminous and other soft coal.....	1.6	1.8	3.2	3.6	2.6	2.3	2.8	2.9	2.5	2.6
Crude petroleum and nat. gas.....	3.7	3.9	3.2	1.6	.4	.5	.5	.8	1.4	3.0
Mining and quarrying, except fuel.....	4.7	3.9	4.8	5.4	5.6	5.3	5.1	5.5	4.3	3.7
Contract construction.....	35.4	78.4	70.2	64.9	56.0	50.0	74.1	54.6	47.4	48.0
Manufacturing.....	12.4	12.4	14.2	15.5	14.3	16.3	20.2	19.7	17.6	21.3
Fish processing.....	6.5	5.5	6.4	7.1	3.1	3.3	5.2	4.6	3.3	2.7
Other manufacturing.....	5.9	6.9	7.8	8.4	11.2	13.0	15.0	15.1	14.3	18.6
Wholesale and retail trade.....	20.4	30.2	33.5	34.8	33.9	33.7	37.7	40.7	39.1	46.0
Finance, insurance, and real estate.....	1.7	2.5	3.4	4.5	4.7	4.7	5.0	5.8	6.7	7.6
Banking and other finances.....	1.2	1.6	1.9	2.2	2.4	2.5	2.9	3.4	3.8	4.2
Insurance and real estate.....	.5	.9	1.5	2.3	2.3	2.2	2.1	2.4	2.9	3.4
Transportation.....	11.3	16.6	20.2	21.6	20.9	21.1	25.1	24.3	25.7	28.7
Railroads.....	.3	.4	.6	.7	.8	.6	.7	.7	.7	.7
Highway freight and warehousing.....	2.3	3.1	4.3	5.1	5.4	6.1	6.6	6.0	6.7	6.4
Other transportation.....	8.7	13.1	15.3	15.8	14.7	14.4	17.8	17.6	18.3	21.6
Communications and public utilities.....	1.4	1.4	1.8	2.2	2.7	2.8	3.6	6.2	12.6	12.1
Telephone, telegraph, and other communications.....	.6	.6	.6	.8	1.1	1.3	1.7	4.1	10.4	9.6
Electric, gas, and other public utilities.....	.8	.8	1.2	1.4	1.6	1.5	1.9	2.1	2.2	2.5
Services.....	8.9	16.8	16.6	14.5	12.7	14.4	17.0	18.8	20.6	25.1
Hotels and other lodging places.....	1.3	1.5	1.5	1.6	1.7	1.7	2.4	2.8	2.4	3.3
Personal services and private households.....	2.2	2.7	3.2	3.4	3.1	3.1	3.4	3.6	3.7	3.9
Business and repair services.....	.9	1.5	1.8	2.1	1.9	2.1	2.4	2.9	4.1	6.3
Amusement and recreation.....	.5	.5	.8	.9	.9	.9	1.0	1.1	1.3	1.4
Professional, social, and related services.....	4.0	10.6	9.3	6.5	5.1	6.6	7.8	8.4	9.1	10.2
Government.....	158.6	195.3	230.0	252.2	249.7	260.1	260.5	261.7	251.5	254.6
Federal, civilian.....	63.9	69.7	78.1	87.3	84.7	90.1	91.5	92.2	101.7	107.8
Federal, military.....	83.9	111.7	137.3	147.8	147.4	149.1	142.6	142.7	119.5	113.0
State and local.....	10.8	13.9	14.6	17.1	17.6	20.9	26.4	26.8	30.3	33.8
Other industries.....	4.0	4.9	4.8	3.8	5.0	4.3	5.5	4.9	4.7	4.6
Fishing.....	3.7	4.4	4.4	3.2	4.4	3.7	4.8	4.2	4.0	3.7
Other.....	.3	.5	.4	.6	.6	.6	.7	.7	.7	.9
<b>Other labor income</b> .....	<b>2.2</b>	<b>2.9</b>	<b>4.2</b>	<b>4.9</b>	<b>5.3</b>	<b>5.7</b>	<b>7.9</b>	<b>8.8</b>	<b>9.9</b>	<b>10.8</b>
<b>Proprietors' income</b> .....	<b>32.6</b>	<b>46.5</b>	<b>46.1</b>	<b>42.3</b>	<b>41.8</b>	<b>39.1</b>	<b>42.3</b>	<b>39.0</b>	<b>38.2</b>	<b>41.9</b>
Farm.....	.9	1.1	1.4	1.4	1.4	1.6	2.0	2.1	2.0	1.8
Nonfarm.....	31.7	45.4	44.7	40.9	40.4	37.5	40.3	36.9	36.2	40.1
Fishing.....	5.8	7.0	7.1	5.1	7.1	6.0	7.6	6.8	6.8	5.7
Other nonfarm.....	25.9	38.4	37.6	35.8	33.3	31.5	32.7	30.1	29.4	34.4
<b>Property income</b> .....	<b>15.9</b>	<b>19.1</b>	<b>22.6</b>	<b>25.8</b>	<b>27.4</b>	<b>28.8</b>	<b>30.7</b>	<b>32.3</b>	<b>32.0</b>	<b>34.1</b>
<b>Transfer payments</b> .....	<b>10.3</b>	<b>8.9</b>	<b>11.8</b>	<b>14.5</b>	<b>16.4</b>	<b>17.5</b>	<b>17.8</b>	<b>20.3</b>	<b>22.6</b>	<b>22.5</b>
<b>Less: Personal contributions for social insurance</b> .....	<b>6.0</b>	<b>6.6</b>	<b>6.0</b>	<b>6.0</b>	<b>6.2</b>	<b>7.2</b>	<b>8.3</b>	<b>9.2</b>	<b>10.3</b>	<b>10.4</b>

NOTE.—Detail will not necessarily add to totals because of rounding.

*Table 3.—Industrial Distribution of Personal Income, 1950-59*

[Millions of dollars]

Item	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
<b>Personal Income</b> .....	<b>319.0</b>	<b>439.0</b>	<b>485.0</b>	<b>506.0</b>	<b>493.0</b>	<b>500.0</b>	<b>548.0</b>	<b>537.0</b>	<b>527.0</b>	<b>556.0</b>
<b>Government income disbursements</b> <sup>1</sup> .....	<b>165.5</b>	<b>200.8</b>	<b>240.3</b>	<b>265.2</b>	<b>265.7</b>	<b>276.4</b>	<b>277.2</b>	<b>280.8</b>	<b>272.2</b>	<b>275.9</b>
Federal.....	153.0	185.1	223.6	245.8	245.4	252.5	247.5	250.6	238.7	238.9
Net civilian earnings.....	61.5	67.5	76.4	85.7	83.6	88.8	90.5	91.1	100.7	107.1
Military earnings.....	82.0	109.5	136.3	147.2	147.0	148.7	142.2	142.2	118.7	112.3
Other.....	9.5	8.1	10.9	12.9	14.8	15.0	14.8	17.3	19.3	19.5
State and local.....	12.5	15.7	16.7	19.4	20.3	23.9	29.7	30.2	33.5	37.0
<b>Earnings of persons in private industry</b> <sup>2</sup> .....	<b>140.2</b>	<b>222.2</b>	<b>225.5</b>	<b>218.6</b>	<b>204.3</b>	<b>198.3</b>	<b>244.0</b>	<b>228.8</b>	<b>226.9</b>	<b>251.3</b>
Commodity-producing industries.....	78.8	127.6	122.2	115.3	106.2	98.3	131.0	109.1	97.2	101.1
Contract construction.....	38.4	84.0	74.9	69.2	59.6	53.7	79.4	58.5	50.5	51.2
Manufacturing.....	13.5	13.6	15.7	16.8	15.4	17.5	22.0	21.5	19.1	22.8
Fish processing.....	7.0	6.1	7.3	7.9	3.6	3.8	5.9	5.4	3.9	3.4
Other manufacturing.....	6.5	7.5	8.4	8.9	11.8	13.7	16.1	16.1	15.2	19.4
Mining.....	11.2	11.2	12.6	12.2	10.1	9.3	9.8	10.6	9.5	10.8
Fishing.....	9.6	11.5	11.6	8.9	11.5	9.8	12.5	11.0	10.9	9.5
Agriculture.....	6.1	7.3	7.4	8.2	9.6	8.0	7.3	7.5	7.2	6.8
Distributive industries.....	61.4	94.6	103.3	103.3	98.1	100.0	113.0	119.7	129.7	150.2
Trade.....	29.4	43.2	47.1	47.1	44.7	43.5	47.8	50.3	48.1	56.7
Services.....	13.4	25.5	24.8	21.3	18.5	21.7	25.3	27.4	29.8	37.8
Transportation.....	13.9	19.9	23.8	25.4	24.3	23.9	27.6	26.2	27.7	30.4
Finance, insurance, and real estate.....	3.1	4.2	5.4	7.0	7.6	7.8	8.2	8.9	10.0	11.6
Communications and public utilities.....	1.6	1.8	2.2	2.5	3.0	3.1	4.1	6.9	14.1	13.7
<b>Less: Personal contributions for social insurance in private industry</b> .....	<b>1.0</b>	<b>1.6</b>	<b>2.1</b>	<b>2.0</b>	<b>2.3</b>	<b>2.7</b>	<b>3.1</b>	<b>3.4</b>	<b>3.6</b>	<b>3.9</b>
<b>Other income</b> .....	<b>14.5</b>	<b>17.6</b>	<b>21.0</b>	<b>24.5</b>	<b>25.7</b>	<b>27.6</b>	<b>29.7</b>	<b>31.2</b>	<b>31.3</b>	<b>33.2</b>
<b>Addendum:</b>										
Commodity-producing industries excluding contract construction.....	40.4	43.6	47.3	46.1	46.6	44.6	51.6	50.6	46.7	49.9
Fishing (catching and processing).....	16.6	17.6	18.9	16.8	15.1	13.6	18.4	16.4	14.8	12.9

<sup>1</sup> Consists of income disbursed directly to persons by the Federal and State and local governments.      Comprises wages and salaries (net of employee contributions for social insurance), other labor income, interest, and transfer payments.

<sup>2</sup> Consists of wage and salary disbursements, other labor income, and proprietors' income.

**Table 4.—Annual Dollar Changes in Personal Income by Major Industrial Sources, 1950-59**

[Millions of dollars]

Item	1950 to 1951	1951 to 1952	1952 to 1953	1953 to 1954	1954 to 1955	1955 to 1956	1956 to 1957	1957 to 1958	1958 to 1959	1951 to 1953	1953 to 1959	1950 to 1959
<b>Personal Income</b> .....	<b>120.0</b>	<b>46.0</b>	<b>21.0</b>	<b>-13.0</b>	<b>7.0</b>	<b>48.0</b>	<b>-11.0</b>	<b>-10.0</b>	<b>30.0</b>	<b>67.0</b>	<b>50.0</b>	<b>237.0</b>
<b>Government income disbursements</b> <sup>1</sup> .....	<b>35.3</b>	<b>39.5</b>	<b>24.9</b>	<b>.5</b>	<b>10.7</b>	<b>.8</b>	<b>3.6</b>	<b>-8.6</b>	<b>3.7</b>	<b>64.4</b>	<b>10.7</b>	<b>110.4</b>
Federal.....	32.1	38.5	22.2	-.4	7.1	-5.0	3.1	-11.9	.2	60.7	-6.9	85.9
Net civilian earnings.....	6.0	8.9	9.3	-2.1	5.2	1.7	.6	9.6	6.4	18.2	21.4	45.6
Military earnings.....	27.5	26.8	10.9	-.2	1.7	-6.5	.0	-23.5	-6.4	37.7	-34.9	30.3
Other.....	-1.4	2.8	2.0	1.9	.2	-.2	2.5	2.0	.2	4.8	6.6	10.0
State and local.....	3.2	1.0	2.7	.9	3.6	5.8	.5	3.3	3.5	3.7	17.6	24.5
<b>Earnings of persons in private industry</b> <sup>2</sup> .....	<b>82.0</b>	<b>3.3</b>	<b>-6.9</b>	<b>-14.3</b>	<b>-6.0</b>	<b>45.7</b>	<b>-15.2</b>	<b>-1.9</b>	<b>24.4</b>	<b>-3.6</b>	<b>32.7</b>	<b>111.1</b>
Commodity-producing industries.....	48.8	-5.4	-6.9	-9.1	-7.9	32.7	-21.9	-11.9	3.9	-12.3	-14.2	22.3
Contract construction.....	45.6	-9.1	-5.7	-9.6	-5.9	25.7	-20.9	-8.0	.7	-14.8	-18.0	12.8
Manufacturing.....	.1	2.1	1.1	-1.4	2.1	4.5	-.5	-2.4	3.7	3.2	6.0	9.3
Fish processing.....	-.9	1.2	.6	-4.3	.2	2.1	-.5	-1.5	-.5	1.8	-4.5	-3.6
Other manufacturing.....	1.0	.9	.5	2.9	1.9	2.4	.0	-.9	4.2	1.4	10.5	12.9
Mining.....	.0	1.4	-.4	-2.1	-.8	.5	.8	-1.1	1.3	1.0	-1.4	-.4
Fishing.....	1.9	.1	-2.7	2.6	-1.7	2.7	-1.5	-.1	-1.4	-2.6	.6	-.1
Agriculture.....	1.2	.1	.8	1.4	-1.6	-.7	.2	-.3	-.4	.9	-1.4	.7
Distributive industries.....	33.2	8.7	.0	-5.2	1.9	13.0	6.7	10.0	20.5	8.7	46.9	88.8
Trade.....	13.8	3.9	.0	-2.4	-1.2	4.3	2.5	-2.2	8.6	3.9	9.6	27.3
Services.....	12.1	-.7	-3.5	-2.8	3.2	3.6	2.1	2.4	8.0	-4.2	16.5	24.4
Transportation.....	6.0	3.9	1.6	-1.1	-.4	3.7	-1.4	1.5	2.7	5.5	5.0	16.5
Finance, insurance, and real estate.....	1.1	1.2	1.6	.6	.2	.4	.7	1.1	1.6	2.8	4.6	8.5
Communications and public utilities.....	.2	.4	.3	.5	.1	1.0	2.8	7.2	-.4	.7	11.2	12.1
<b>Less: Personal contributions for social insurance in private industry</b> .....	<b>.6</b>	<b>.5</b>	<b>-.1</b>	<b>.3</b>	<b>.4</b>	<b>.4</b>	<b>.3</b>	<b>.2</b>	<b>.3</b>	<b>.4</b>	<b>1.9</b>	<b>2.9</b>
<b>Other income</b> .....	<b>3.1</b>	<b>3.4</b>	<b>3.5</b>	<b>1.2</b>	<b>1.9</b>	<b>2.1</b>	<b>1.5</b>	<b>.1</b>	<b>1.9</b>	<b>6.9</b>	<b>8.7</b>	<b>18.7</b>
<b>Addendum:</b>												
Commodity-producing industries excluding contract construction.....	3.2	3.7	-1.2	.5	-2.0	7.0	-1.0	-3.9	3.2	2.5	3.8	9.5
Fishing (catching and processing).....	1.0	1.3	-2.1	-1.7	-1.5	4.8	-2.0	-1.6	-1.9	-.8	-3.9	-3.7

For footnotes, see table 3, p. 33.



**Table 5.—Annual Relative Changes in Personal Income by Major Industrial Sources, 1950–59**

(1950=100)

Item	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
<b>Personal Income</b> .....	<b>100</b>	<b>138</b>	<b>152</b>	<b>159</b>	<b>155</b>	<b>157</b>	<b>172</b>	<b>168</b>	<b>165</b>	<b>174</b>
<b>Government income disbursements</b> <sup>1</sup> .....	<b>100</b>	<b>121</b>	<b>145</b>	<b>160</b>	<b>161</b>	<b>167</b>	<b>167</b>	<b>170</b>	<b>164</b>	<b>167</b>
Federal.....	100	121	146	161	160	165	162	164	156	156
Net civilian earnings.....	100	110	124	139	136	144	147	148	164	174
Military earnings.....	100	134	166	180	179	181	173	173	145	137
Other.....	100	85	115	136	156	158	156	182	203	205
State and local.....	100	126	134	155	162	191	238	242	268	296
<b>Earnings of persons in private industry</b> <sup>2</sup> .....	<b>100</b>	<b>158</b>	<b>161</b>	<b>156</b>	<b>146</b>	<b>141</b>	<b>174</b>	<b>163</b>	<b>162</b>	<b>179</b>
Commodity-producing industries.....	100	162	155	146	135	125	166	138	123	128
Contract construction.....	100	219	195	180	155	140	207	152	132	133
Manufacturing.....	100	101	116	124	114	130	163	159	141	169
Fish processing.....	100	87	104	113	51	54	84	77	56	49
Other manufacturing.....	100	115	129	137	182	211	248	248	234	298
Mining.....	100	100	113	109	90	83	88	95	85	96
Fishing.....	100	120	121	93	120	102	130	115	114	99
Agriculture.....	100	120	121	134	157	131	120	123	118	111
Distributive industries.....	100	154	168	168	160	163	184	195	211	245
Trade.....	100	147	160	160	152	148	163	171	164	193
Services.....	100	190	185	159	138	162	189	204	222	282
Transportation.....	100	143	171	183	175	172	199	188	199	219
Finance, insurance, and real estate.....	100	135	174	226	245	252	265	287	323	374
Communications and public utilities.....	100	112	138	156	188	194	256	431	881	856
<b>Less: Personal contributions for social insurance in private industry</b> .....	<b>100</b>	<b>160</b>	<b>210</b>	<b>200</b>	<b>230</b>	<b>270</b>	<b>310</b>	<b>340</b>	<b>360</b>	<b>390</b>
<b>Other income</b> .....	<b>100</b>	<b>121</b>	<b>145</b>	<b>169</b>	<b>177</b>	<b>190</b>	<b>205</b>	<b>215</b>	<b>216</b>	<b>229</b>
<b>Addendum:</b>										
Commodity-producing industries excluding contract construction.....	100	108	117	114	115	110	128	125	116	124
Fishing (catching and processing).....	100	106	114	101	91	82	111	99	89	78

For footnotes, see table 3, p. 33.

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